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Research Lectures Series No 7.

Some Problems
in
KANNADA LINGUISTICS

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by

C. R. SANKARAN M. A.

1954

KANNADA RESEARCH INSTITUTE
DHARWAR

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Research Lectures Series No. 7.

General Editor :

S. S. MALWAD, M.A.,

Director, Kannada Research Institute

Some Problems

in

Kannada Linguistics

by

C, R. SANKARAN, M.A.,

Reader in Dravidian Philology and in Experimental Phonetics,

Deccan College Postgraduate and Research Institute, Poona.

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FOREWORD

With the advance of the Science of Linguistics, literature on the subject has naturally been growing in recent times. But there are very few systematic attempts made in respect of Kannada Linguistics. It is this reason that gives us pleasure in publishing the three research lectures delivered by Prof. C. R. Sankaran in the year 1941, in the series of the Annual Research Lectures of the Kannada Research Institute.

Here is a technical subject which the author has handled with the characteristic skill of a research mind. The lines of modern scientific investigation in Kannada Linguistics which he has pursued are quite useful. While doing so, the author has shown the way for research scholars in this branch. Apart from the valuable conclusions he has arrived at, the author has thrown out a number of hints for research workers in the field for being followed up. As such, this work would prove to be a good guide for those interested in this type of work.

We have three lectures before us.

In the first lecture, the author has discussed the problems of Kannada morphology and phonology in the light of the recent investigations. It would be seen that the author has also thrown light on the questions of Dynamic Formations, Middle Demonstratives, Optative Mood and Negative adverbial participle, in the course of his discussion on morphology and phonology.

In the second lecture, Kannada Semantics, Syntax and topics such as " Desi " words in Indo-Aryan

and Dravidian languages, principles governing the preparation of a historical dictionary,and the reallexicon of Indian Linguistics are discussed.

The third and the last lecture is devoted to problems such as the concept of ethno-psychology, dynamic philology as applied to Kannada and the science of synonyms.

What Prof. Sankaran has said in the three lectures is rather brief. But the significant hints and suggestions which he has included in these three lectures would certainly go a long way in furthering the studies on the lines he has suggested. The suggestion to apply rigorous statistical methods to Ethno-psychological problems is of a special interest as fundamental laws governing the human speech could thus be formulated. The emphasis on the survey of the dialects of the aboriginal tribes is a timely one. The need for the reallexicon of Indian Linguistics and a large share required to be contributed by the Dravidian scholars in this behalf are rightly pointed out.

Would it be too ambitious on the part of the Dravidian scholars to think in terms of perfecting the attempt of Jespersen in respect of syntactical phenomena of the languages or rewriting the phonology of the Dravidian Languages.

Prof. Sankaran has done well in pleading for the co-operation of the scientists in the allied fields of Linguistics, Archaeology and Anthropology as a fundamental unity could be traced in these subjects.

It is hoped that the scholars working in the field of Kannada Linguistics would take up at least a

few of his practical suggestions even if this has been delayed so far.

With a scientific approach and a painstaking and sincere study as is evident from the lectures as also from the copious foot-notes, it is expected that this attempt of Prof. Sankaran would serve a useful purpose.

We should like to thank Prof. C. R Sankaran for his co-operation in bringing out this book. Thanks are also due to the manager of the Saraswati Printing Press, Dharwar.

Kannada Research Institute,
Dharwar, 25th May, 1954.

S. S. MALWAD.

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ACKNOWLEDGMENT

My thanks are first due to the Director of the Deccan College Research Institute, Poona, for kindly permitting me to get these lectures printed under the auspices of the Dharwar Kannada Research Institute.

My grateful thanks also go to the Director of the Kannada Research Institute, Dharwar, for publishing these lectures delivered twelve years ago.

I am particularly indebted to my former student, Dr. G. S. Gai, for revising the proofs on my behalf.

Lastly, my thanks are also due to the Saraswati Press, Dharwar.

C. R. Sankaran

DEDICATION :

Dedicated to all my devoted collaborators whose one ideal is disinterested research.

C. R. SANKARAN

Some Problems in Kannada Linguistics.

LECTURE I.

I appreciate the courtesy extended to me by your Institute. By asking me to deliver these lectures I take it that the two sister institutions recently started in the Bombay Province, the Dharwar Kannaḍa Research Institute and the Deccan College Research Institute, have already entered into a very happy collaboration. I shall be happy if scholars, particularly students of Kannaḍa in this Province, come to realise fully all for which these two institutions stand and I shall endeavour in the three lectures I am called upon to deliver here, to indicate not merely certain lines of modern scientific investigations in Kannaḍa Linguistics to be undertaken which I feel are absolutely necessary but also the lines on which both the institutions may usefully co-operate leading to fruitful results.

It is not necessary for me to enumerate here the names of several scholars and their works in the preceding generations in the field of Dravidian Linguistics in general and more particularly in the field of Kannaḍa Linguistics. I shall plunge into my subject direct referring to the contributions of scholars as and when the need arises during the course of these lectures while discussing the problems I venture to place before you.

I shall first discuss some problems of Kannaḍa Morphology, some of Kannaḍa Phonology, some of Kannaḍa Syntax and some of Kannaḍa Semantics.

The first problem of Kannaḍa morphology I should like to place before you is the problem of the dynamic formations the intentional sound alternations for the purpose of change in meaning. According to CONRADY[1] in the Dravidian 'the causative formation through a purely mechanical change of the initial consonant was impossible.' Doubtless the Kannaḍa form *āgu* 'to become' which occurs as early as the 6th or the 7th cent., inscriptions[2] (cf. also Tam. *āgu*) does not have a form like the Tam. *ākku* 'to make' which confirms CONRADY'S theory so far as Kannaḍa alone is concerned. For even in the old Kannaḍa the special suffixes—*isu* and—*ppu* were used to denote the causative. For instance, *niṛisu*, *biḍisu*, *salisu*, *māḍisu* and *muḍippidār*[3]. But CONRADY'S is a sweeping generalization, for he does not restrict his theory to Kannaḍa alone and the Tam. instances invalidate his theory in entirety. (Cf. Tam. *ōḍu* 'to run' and *ōṭṭu* 'to drive', *āgu* 'to become' and *ākku* 'to make')[4].

It will be fruitful if students of Kannaḍa Linguistics investigate whether any trace of such causative formation as we find in the Tam., instances given above occur in the middle or later Kannaḍa. It will be no doubt interesting if we could find out a possible reason why old Kannaḍa differs substantially from Tam. in this respect.

I might draw your attention here while on this subject of dynamic formations that the present tense is differentiated from the preterite through a different form both in Tam., and in Kannaḍa.

Ex.: Tam. *nagugirēṉ* Kan. *naguvēn* 'I laugh'
Tam., and Kan., *nakkēn* 'I laughed'.

It is needless for me to point out in this connection that the change here manifests itself only with the final root sound for in the Dravidian there existed no initial media.

I might also mention here parenthetically that F.Otto SHRAEDER and KOERBER (*Morphology of the Tibetan Language*) discuss the dynamic formations in the Dravidian at some length in their important works.

The next problem I would like to place before you is the problem of the Middle Demonstrative in Dravidian and particularly in Kannaḍa. We have discussed this question at some length in a paper in the *Indian Linguistics*[5].

There is a high degree of probability that—*uḷ*, the primary and the principal termination of the loc., case occuring in the oldest of Kannaḍa inscriptions[6] was a deictic base formed of the intermediate demonstrative *u* and the formative *ḷ* of Dravidian[7]. I may point out that the phenomenon we are discussing here, viz., the middle demonstrative particularly in Kannaḍa and generally in Dravidian seems to me an Ethno-psychological feature. I refer here to a paper my student Mr. G. S. GAI and I have written on the subject[8]. In this connection I might also point out here parenthetically that we have discussed the methodological importance of the concept of Ethno-psychology in Linguistics in a a paper read at the recent All-India Oriental Conference. I shall come to the concept of ethno-psychology in my concluding lecture.

The interrogative bases of Dravidian have been discussed in an interesting paper of L. V. R. AIYAR[9]. It is necessary for us to investigate when the base *dā* first

began to appear in old Kannaḍa. You know that its Brāhūī correspondent is *dēr* 'who' and its Tuḷu correspondent is *dā*. The old Kannaḍa *dāru* is usually derived from **ēr* like the Brāhūī *dēr* and is assumed to correspond to Tam., *yār*<**ehar* which E. H. TUTTLE gives as an example of a prefix plainly visible in Dravidian[10]. I do not think that the problem of the existence of *dāru* beside *āru* and *yāru* in Kannaḍa has been thoroughly investigated at all by any scholar so far. No satisfactory explanation has been given for the secondary interrogative bases in Dravidian. It is also necessary to investigate more thoroughly the deictic bases *ĭ̄* denoting proximity, *ă̄* denoting remoteness and *ŭ̄* signifying something between proximity and remoteness in Dravidian. Again the problem when the original interrogative *ā* (assuming the original character of *ā*) developed a palatal tonality in some Dravidian dialects while in some others a dorsal tonality (Tuḷu *vā*, *vō* and Goṇḍi *bā*) appears to me a very fascinating one. Can any possible explanation be given why in Kannada the original interrogative base *ă̄* did not undergo any change either in the palatal or in the dorsal direction? In the first place, are our investigations so complete as to warrant the assumption explicit in the above question? Lastly, can we justifiably assume that the original remote demonstrative particle *ā* of Dravidian was chosen deliberately as the most appropriate base for expressing the interrogative idea? These questions which necessarily should be looked at from the larger Dravidian point of view, can not now be answered all at once. They all require patient, systematic, laborious and painstaking investigations from competent scholars.

Let us take yet another problem in morphology — the problem of the potential or optative mood-what is called the *Viyaṅkōḷ* in Tamil. According to *Tolkāppiyam*, 1st and 2nd person pronouns were not used as subject with a verb in this mood (*eñciyakiḷavi iṭattoṭu civaṇi aimpārkum uriya tōṉṟal āṟē* (*Tol., Col., 227*) while at the time of *Naṉṉūl* all the three persons were used as subject along with the verb in that mood (References to this question are found in the following : P. S. S. Sastri, *JORM*, Vol. V, 1931, pp. 50-51).

According to Tolkāppiyanar, not only would a verb in the potential mood can not have for its subject first and second person pronouns but also with the third person pronoun in all the numbers and genders there if only one single form of the potential mood to be used. But the author of *Tolkāppiyam* did not make the specific mention of the form of the potential mood. But in *sūtras* like the following, *Tol., Coll.* 458 and 463; *Urai iṭattiyalum uṭaṉilai aṟital* (458)

463:— *Kāṭṭal*; he himself has used the potential mood in the forms like *aṟital* and *kāṭṭal.*

Therefore it was taken by followers of *Tolk.*, that the morpheme *-al* was the potential suffix. It might be that the Tolk., might have used *aṟital* in the sense of *aṟital vēṇḍum* 'it must be known' (Here I use the word morpheme following L. Bloomfield's definition 'the minimum meaningful unit in speech'). If *aṟital* meant 'it must or should be known', then the mood is '*obligative*' (containing an element of will). On the other hand if *aṟital* meant 'may it (that) be known', it is *optative* (realizable, containing again an element of will). Again if *aṟital* meant (at the time of *Tolk.*,)

'it (that) can be known', it is *potential* (containing no element of will).

In using the words *obligative*, *optative* and *potential* in the special senses, we are following here Otto JESPERSEN (*The Philosophy of Grammar*, pp. 320-21). But ordinarily we tentatively take *viyaṅkōḷ* as potential (may be rather loosely, following of course P. S. S. SASTRI, *JORM*, 1931, Vol. V, pp. 50-51).

The author of *Vīracōḷiyam* follows *Tolk.*, in taking the view that the verb in the potential mood can be taken only in the third person and he adds that *-ka* is to be added to the root to make it the potential mood. Ex. *ceyka*.[12]

As we have seen the author of *Naṉṉūl* is of opinion that all the three persons could be used with the verb in the potential mood, and he gives the following as forms in the potential mood by way of illustrations:— *ceyka*, *ceyyiya*, *ceyyiyar*[13]. The author of *Ilakkaṇa viḷakkam* agrees with the author of *Naṉṉūl*. But he adds that the following five morphemes *-al*, *-āl*, *-um*, *-mār* and *-ai*, were potential suffixes and this author gives examples from the old Tamil literature (Classics)[14]. P. S. S. SASTRI opines that the last is the most tenable of all the views (*Tamil Moḻiṅūl*, p. 102). P. S. S. SASTRI further proceeds to give additional examples:- *Vāiḻya ñī* 'may you live', *optative* [realizable (?) and corresponds to the benedictive mood in Sanskrit] I draw here attention also to *vāḻiya ceṅtamiḻ* in one of the poems of the late Subrahmanya *Bhārati*, the great modern Tamil poet.

Vāḻiyar yān 'may I live' *Puṟaṉāṉūṟu*. (365, 9)
Vāḻiyar pala 'may many live' (*Puṟa*. 371, 25).

nī vāḻiyar 'may you live (prosper)' (*Pura*. 137,14)
ceytēṉ ākuka 'may I have it committed' (*Puṟa*.71,9)
celvai yākuvai 'you would become rich' (*Puṟa*. 70, 15)[15].

In colloquial Tamil we have also the following forms: *vāḻaṭṭum* 'may it live'; *vāḻakkaḍavaṉ* 'may he live';

vāḻakkaḍavāḷ 'may she live' (This is apparently *presumptive* containing no element of will).

If we however take the sense we have taken, it is *optative* (realizable) containing an element of will. But we might translate it as 'she would have lived' also. In that case it is obviously *presumptive* (containing no element of will). Here we again try to bring these instances under the tentative list of the classification of *Jespersen*.

According to *Cēṉāvaraiyar*, *Deyvaccilaiyār*, the *Sūtra* 226 of *Tolk Coll.*, says that a verb in the potential mood would not have for its subject a noun in the first and second person pronouns. But *Nacciṉārkiṉiyar* says that not only the first and the second person pronouns can be subject of a verb in the potential mood but also the so called dead (*aḥṟiṇai*) word can not be the subject of a verb in the potential mood while generally living (*uyartiṇai*) word can be the subject of a verb in the potential mood. This interpretation does not seem to be consistent with the *sūtra* in question.

Muṉṉilai taṉmai y-āyi r-itattotu
Maṉṉā tākum viyankōṭ kiḷavi.

I can not but think of another *sūtra* too in *Tolkāppiyam* in this connection.

Viyaṅkōḷ eṉṉuppeyar tiṇaiviravu varaiyār (*Tolkāppiyam, Collatikāram,* sūtra, 45).

'It is not prohibited to connect *uyartiṇai* nouns and *a∴riṇai* nouns by *and* if both of them have a verb in the potential mood as the common predicate'

Ex:— *āvum āyaṉum celka* 'Let the cows and the shepherd go'.

This is the straightforward interpretation of the *sūtra* given by *Iḷampūranar* and *Deyvaccilaiyār.* But the interpretation given by *Cēṉāvaraiyār* and *Naccinārkkiniyar* is that this *sūtra* sanctions the use of one verb in the potential mood when the subject consists of both *uyartiṇai* and *a∴riṇai* nouns. This interpretation is unsound for the following reasons.

(1) No other *sūtra* sanctions the counting of *uyartiṇai* and *a∴ṛiṇai.*

(2) *Viyaṇkōḷ-Viṇai* or verb in the potential mood has the same forms whether it denotes *uyartiṇai* or *a∴ṛiṇai.* Witness for instance *Tolkāppiyam Collatikāram, Sūtra* 222.

iṉṛila uṭaiya eṉṉum kiḷaviyum
aṉṛuṭaittalla eṉṉum kiḷaviyum
paṇpukoḷ kiḷaviyum uḷa eṉ kiḷaviyum
paṇṇiṉ ākiya ciṉai mutaṛ kiḷaviyum
oppoṭu varūum kiḷaviyoṭu tokai i
appāṛ pattum kuṛippoṭu koḷḷum[16].

The word *viyam* means 'ordering'. We have *viyavar* meaning 'servant'. So the original application of *viyaṇkōḷ* might have been *precative* (containing an element of will). But *precative* is used only when there is ordering while *viyaṇkōḷ* has come to be used

for 'blessing' etc. And *imperative* comes only for second person while *viyaṅkōḷ* for all persons and numbers. In *Imperative* there is a distinction of singular and plural while in *viyaṅkōḷ* there is no such distinction. This is the later analysis of commentators who followed *Naṉṉūl*. See *Kāṇḍikai Urai*, p. 219.

Prof. A. N. NARASIMHIA[17] says of the optative mood in old Kannaḍa as follows:

'The desire or a wish is expressed by an optative The optative is formed by the addition of *-ge* (*-ke*) to roots ending in *i*, *u*, *e* and *l*, without any tense suffix:

taṇi-ge, keḍu-ge, peḷcu-ge, nene-ge, veḷe-ge, sal-ge.

Those used in the sense of blessing: *taṇi-ge, peḷcu-ge, nene-ge, veḷege*:

In the sense of curse: *keḍuge*, (*narakakke*) *sal-ge*'.

I need hardly point out here that the so called optative mood of Kannaḍa should be subjected to the same kind of analysis as I am suggesting here for the potential or the optative mood of Tamil.

Before taking leave of the discussion of the optative mood, I wish to draw your attention to an interesting paper of Prof. S. M. KATRE[18] 'Study of the Sporadic use of the Optative form in place of the past tense' Prof. C. C. UHLENBECK[19] commenting on this says that this phenomenon occurs in many languages. In the Russian popular dialect for example, the use of the optative form with the value of an emotional past tense is quite common. In very lively narration, especially when it is intended to make the listener participate in one's emotion this construction is employed, e.g. 'Let him suddenly now have fallen in love with

the chambermaid', or 'let him suddenly now have slipped and broken his leg' instead of 'He suddenly fell in love with the chambermaid', or 'he suddenly slipped and broke his leg'. In Dutch the use of such repressopmal grammatical turns seems to be very uncommon, even in the narration of sudden and shocking utterances. By its use the listener is made to participate more vehemently in the event which has occurred than through the use of the familiar historical present. An expression like 'see, let him now have fallen suddenly down the stairs from the landing' is richer in emotion and affects the listener more forcefully than the expression 'See, he now falls suddenly down the stairs from the landing'. A systematic inquiry as Prof. C. C. UHLENBECK[20] rightly observes after such turns of expression in every language should produce surprising results. Here therefore is a rich field for Dravidian scholars. We have to attack this problem from the point of view of our languages. In such enquiry one would naturally be led to include the study of the force of the ethical dative (as in the Dutch '*me*' or '*je*') and the dative of kinship in Dravidian. In the critical edition of the *Mbh.* we meet with such an idiom like *pitā mahyam*, where the dative is beyond doubt. The variant *mama* or *me* (the last being originally locative, taking the place of the dative and genitive already during the Vedic period), is very conspicuous in the apparatus criticus with reference to the northern MSS. Dative of kinship is the normal Dravidian idiom, and therefore no real variant of the dative will occur in MSS., hailing from these places. This dative of kinship forms part of the most prolific in Vedic prose[21].

I come now to the problem of the negative adverbial participles in Kannaḍa. I take your permission to quote here Prof. A. N. NARASIMHIA[22] in extenso :—

'The suffixes *-āde* and *-ade*, are added to roots to convert them into neg., adv., participles. The form of neg., adv., participle is the same for the past, the present and the future, the tense of the neg. participle being determined by the tense of the finite verb in the sentence. Like *-ān* in the gen. the *-āde* suffix is more ancient than *-ade*. In O. T. and N. T. *-āde* forms are in use, but in M. K. and N. K. only *-ade* forms are found. The examples are :—

-āde, allāde, tappāde, [*tappadu* <*tavu* + *pa* + *āde* (SMD. 240)] *veḷeyāde* (cf. N. T., O. T., *allāmal, allāde-, tappāde, veḷeyāde*) cf. T. H. *illāda, paḷā*, art 112.

-ade tankade, lekkisad-uṁ.'

'*Kittel's* statement that the neg., participle is formed by suffixing *-ade* to the short form of the infinitive is wrong. In the formation of adv. participles, there is a principle consistently followed: the tense-suffix and the participial suffix are clearly related and are almost the same.

	Tense suffix	Parti., suffix.
Past	*- da -*	*- du -*
Fut.	*- va -*	*- va -*

'In the neg., adv., participles also, the same principle is followed: the neg. suffix *-ā-*(later *-a-*) is added to the root and then *-de*, the participial suffix is affixed. The result is the same in either case: *ira ade* (KITTEL) and *ir-ā de*. The neg. declinable participle is formed by suffixing *-a* to the neg., adv., participle (as in the case of declinable participles generally). Only example

is *nillada* from *nillade* (neg. adv. p.) from *nil* –to stand.'

That *āde* was the original morpheme and *ade* the later one is further supported by the findings of my student G. S. GAI in the inscriptions later than the 6th and the 7th cents. The later we proceed, the more we meet with *–ade* forms. This might confirm the hypothesis that *–āde* is older than *–ade*. In this connection, I would suggest that the accusative case termination *–ān* and the genitive case termination *–ā* in the forms of the oldest Kannaḍa inscriptions may be taken to be the earlier forms of *-an* and *-a* respectively.

Here is a parallel to the opposition between the modern scientific view that IE **ē, e, o, ō, ai, au, ar, ār, al, āl* in the PIE. were originals as against the view of the traditional grammarians that *a, i, u, ṛ, ḷ* were originals and the *guṇa* and *vṛddhi* were the later developments.

[Witness PĀNINI *-ikō guṇa vṛddhī* (P. i.i 3); contrast it with *ig yaṇah saṁprasāraṇam* P. i.i 45.]

Ex. IE **bheu – >bhav–*

It is possible, if I am permitted to generalise from this point, that the primitive Kannaḍa too might not have been of a simple isolating structure and there might have been a continuous movement from complex to simple structre in the history of the Kannaḍa language. This hypothesis has yet to be tested by more detailed investigations in Kannaḍa linguistics. But I may be permitted to point out parenthetically here that such an hypothesis is tenable *a priori* in view of the fact that there are many primitive languages whose complexity of psychological or *logical* forms far surpasses even the

grammatical categories of Latin and therefore Franz BOAS assumes that language begins with complex and ends with simple forms, although he does not deny the existence of the opposite tendency altogether[23].

I wish to place before you yet another problem before I take leave of morphology finally.

Prof. NARASIMHIA points out that Acc. case-ending is later in origin in view of the fact that the conjunctive suffix *-um̐* comes after the stem in the acc. but before the case-ending, while in the nom. sg. *-um̐* is suffixed to the stem or the gender-suffix[24]. This hypothesis is confirmed by the findings of my student also[25]. It will be worth while if we attempt to find a *phychological explanation* for the later appearance of the acc., case-ending in old Kannaḍa.

Here I wish just to draw also attention to a kindred problem M. G. VENKATESAIYA, another student of mine touches in a paper read before the 11th All India Oriental Conference (See the *Summaries of Papers* p. 272). For obvious reasons, I shall not comment on this question here as I shall come to the modern statistical approach to the linguistic phenomena in the concluding lecture of this series.

'The disappearance of the Nominative singular suffix in Kannaḍa both in Colloquial speech and in many instances in Hosa-Kannaḍa may be explained by the tendency to maintain equilibrium between the magnitude of a word and its relative frequency. The relative frequencies of the cases (in percentages) in GALAGANATHA'S *Kurukṣētra* are taken to illustrate the preponderating frequency of the Nominative which is 45 64, as against the accusative 15.19, Instrumental 3.11, Dative

9.46, Ablative 0.34, Genitive 20.46 and Locative 5.78. Incidentally the low frequency of the Ablative throws light on the hypothesis that the ablative is not native to Kannaḍa but might have been included on analogy with the cases in Sanskrit.'

I come to Phonology now.

The long consonants in the oldest Kannaḍa inscriptions are discussed by Prof. NARASIMHIA[26]. He observes that ' the shortening of long consonants took place earlier in the terminational element'. As an instance of a native word having long consonant he gives *muḍippidār*. It is interesting to note that in the later inscriptions according to my student GAI'S findings this form has a short consonant.

Again the following alternants are found in the inscriptions of the 8th–10th cent., A. D. *akkum*: *akum*. These alternants show that the long consonants in old Kannaḍa should have contrasted with corresponding short consonants in at least some positions. Consonant-clusters are usually assimilated to the following consonant in old Kannaḍa, e.g.

1. *ṗoḷtu* > *portu* > *pottu* N. K. *hottu* ' time '
2. *gaḷde* > *garde* > *gadde* ' corn-field '; *Kaḷani* (Tamil-Kan.,) GOKI p. 300.

Sometimes these long consonants are shortened. This seems to be the usual process. From these facts it is possible to class the long consonants in Kannaḍa as distinct unit phonemes by the application of the following two important criteria.

(1) Long consonants must contrast with the corresponding short consonants in at least some positions.

(2) They must have the general characteristics of single consonants rather than of consonant-clusters[27].

Of course we assume that the long consonants in Kannaḍa have the general characteristics of single consonants rather than of consonant-clusters because the consonant-clusters seem to have always an unstable equillibrium as they get assimilated transforming themselves to long consonants in all phases of the Kannaḍa language. The assumption here made requires a very careful examination and I think that you will agree with me that this is an important matter to be first desided.

The very interesting question of the six positional variants of the phonem *āytam* in old Tamil has been discussed by us[28]. I might here say that the phoneme ಱ (*ṟ*) in Kannaḍa seems to be a partial *āytam* correspondent in so far as it is used for representing the *upadhmānīya* before *P* in the old Kannaḍa inscriptions (Cf. GOKI, p. 34). It is, therefore, needless for me to point out that the full implications of my theory with reference to the *āytam* have to be thoroughly investigated in the phonetics Laboratory with reference to the *ṟ* (ಱ) of old Kannaḍa also.

Two fundamental problems stare us here.

(1) Whether various sounds may belong to the same phoneme without any demonstrable common phoneme feature in the sound waves, and (2) whether phoneme-grouping is not a product of acoustic analysis. In this connection I would refer you to TWADDELL'S interesting paper in *Language*, Vol. 12, pp. 294-97, 1936, wherein he replies to ANDRADE'S criticisms

against TWADDELL's attitude towards the question of Phoneme being viewed as a physical reality.

I may refer here to the problem of the retroflex phoneme, in Tamil while talking on the Kannaḍa *r̤*.

We have in Tamil an intial voiced fricative (sometimes a two-tap '*r*') similar to the *r* of English *reason* made with the tip of the teeth ridge just before it meets the upper teeth. The front of the tongue is raised (*i*) *rattam* 'blood'. [In literary Tam., *r* can not be initial. (The proclitic syllable is indicated in brackets for reading aloud); it usually contains the vowel *i*, sometimes *u* also.] The clearness of the *r* is never lost sight of. Intervocalically two taps *tiṛa* 'open'. This is according to FIRTH (cf. A *Progressive Grammar of Common Tamil* by A. H. ARDEN, 1934, Appendix, p. 15)

But he seems to lose sight of the fact that even modern Tamil possesses two distinct phonemes (which I symbolise by '*r*' and '*r̤*' respectively) and not phonemic variants of the one '*r*'

For instance,	*Kari*	'Charcoal'
	Kaṛi	'curry'
	maṛam	'valour'
	maram	'tree'

The '*r̤*' *maṛam* 'valour' is definitely alveolar. So also it is an alveolar fricative when preceded by *t̤*, *tt̤* in the group *nt̤r*, *tt̤r* like the English *laundry*, *patrol*, voiced in *nt̤r*, voiceless in *tt̤r*, *ent̤rān* 'he said' (of course following FIRTH, I represent thus –my own method would be *en̤r̤ān̤*). *mattru* 'other'.

We have clearly the dental phoneme '*r*' in *maram* 'tree'. The groups *nt̤r* and *tt̤r* are neither dental nor retroflex, but alveolar as in English.

In the group *ntṛ*, the *r* is fricative as in English, and the whole group alveolar in articulation. After '*n*' the '*ṭ*' is pronounced as *ḍ*, the whole group occurring medially and sounding like *nḍr* as in the English phrase *undreamt of* or in *laundry*.

paṇṭry 'pig' *paṉṛi* *oṇṭru* 'one' *oṉṛu*
eṇṭru 'saying' *eṉṛu* *tōṇṛu*, 'appear' *tōṉṛu*
eṇṭrān 'he said' *eṉṛāṉ*

This *ntṛ* group is represented in Tamil script by ண்ற. Similarly the group *ṭṭṛ* sounds rather like the *ṭr* group in the English word *patrol*. The *tt* varies considerably in relative length according to the style of speech and speed of utterance *māṭṭru* '*māṛṛu*' 'change' *paṭṭru paṛṛu* 'attachment', *pōṭṭri pōṛṛi* 'praising', and *ēṭṭram ēṛṛam* a waterlift. This *ṭṭr* phoneme is represented in Tamil script by ற்ற Medially followed by '*n*', one or two taps, and sometimes fricative

cēṙṙṉtu 'having joined'

Here '*r*' (fricative) is clearly dental. Finally –a short trilled or rolled '*r*' is often unvoiced. It is 'clear' in quality *ūr* 'town'; *malar* 'blossom'

payir 'crops'; *taṇṇīr* 'water'

The '*r*' phoneme often met with in modern Mysore Kannaḍa I may say here seems to be only a one-tap sound – trilled lingual *r*.

I somehow feel that the tongue position remains (at least roughly) the same with the two separate phonemes *r* and *ṛ* in Tamil. But in the absence of kymographic records of the speech of the representatives of various dialects of Tamil, I am afraid nothing definite can be said about the matter. When I say that 'I somehow feel', I mean some such thing as the

intuitive patterning of Sapir (cf. Sapir, *Language*, Vol. 1, pp. 37-51).

Some more examples of *r* or *r̤* preceding a consonant are *Kārkkirāṉ* '(he) is waiting' *karṯpu* 'chastity' *pārttal* 'to see' *karṟka* 'learn'.

There seems to be no single instance where the 'dental *r*' is succeeded by either a retroflex or an alveolar in pure Tamil words. But in Indo-Aryan loans like *carccai* 'dispute' < Skt. *carcā*, the *r* remains strictly dental. Some Indo-Aryan words like *patrikā*, are changed into *pattirikai* in Tamil. The alveolar *r* is of course followed by the alveolo-palatal affricate *c* in *muyaṟci* 'effort' *kavaṟci* 'attraction'. The rolled *r* at the end of words, maintains its rolled trill even in unstressed position at the end of a sentence *mulaiyilēyē teriyum viḷaiyum payir*. The chief sentence accent here lies on the syllable *yē* of the first word which indicates the emphasis 'in the blade itself'. This is a proverb which is usually uttered in the following order : *Viḷaiyum payir mulaiyilē teriyum* 'what kind of grain it will be, will be known by the blade (itself)' (The literal translation would be 'growing corn is known in the blade').

Coming back to the *āytam*, I may point out here that it does not appear to be a common Dravidian Phoneme, although it has its partial correspondent in the Kannaḍa *r* (See L. R. Ramaswami Aiyar, *Ind. Ant.*, Vol.62, 1933, p. 53). I have already shown in later Tamil (Bull. DCRI, Vol.II, 1941, p. 346 and fn. 21) the *āytam* came to be considered identical with the Skt. *jihvāmūlīya* which with the *upadhmānīya* appear

to be only the phonemic variants of *visarga*. I may only draw here your attention to a paper on 'The Phonemic interpretation: the visarga' by A. H. FRY, in *Language*, July-September, 1941).

Here it is useful to touch parenthetically a fundamental question in linguistics. The morphological system of a language could be described without reference to the phonemic quality, i.e. the phonemes could be regarded as 'disjunctive' functional elements, as they are in fact regarded for the purpose of the graphic representation of literary languages, without considerations of their acoustic relations[29].

All the definitions of morpheme with the exception of NOREEN'S which JESPERSEN records in his *Analytic Syntax* (p. 106) indicate 'expressive' units constituted by given phoneme-combinations. Morpheme is the closest significative or conceptual counterpart of the phoneme. VACHEK[30] objects to SKALICKA'S view that the 'correlative relation of two phonemes is considered as their private affair which has no bearing on actual speech'. All that one has to remember simply is that the phoneme is the phonic unit which represents the phonological analysis synchronically relevant to the significative side of language, while the morpheme would represent the furthest degree of significative (semantic) analysis synchronically relevant to the phonic side of language[31].

I am discussing various definitions of morpheme in my next lecture. However, for our practical purposes here the following assumptions and definitions given by BLOOMFIELD[32] would suffice.

Def.: A minimum form is a morpheme. A morpheme is a recurrent (meaningful) form which can not in turn be analyzed into smaller recurrent (meaningful) forms. Hence any analyzable word or formative is a morpheme.

(i) *ele* (8th cent.) 'leaf'; *puli* (8th cent.) 'tiger'; cent., 9th cent.) 'field' – (*l*)

(ii) *tore* (9th cent.) 'river:' *tere* (10th cent.) 'tax' – (*r*)

(iii) *āneya* (7th cent.) 'elephant': *mane* (8th cent.) 'house' – (*n*)

Assumption– Different morphemes may be alike or partly alike as to vocal features.

Thus *book* : *table* (b)

stay : *west* (st)

er (agent) : *er* (comparative)

Kan. *on*, *-on*, gender suffix

ali – alivon } 'he who destroys'(8th century.)
alivōn }

The assumption implies that the meanings are different.

Def.: A minimum same of vocal features is a phoneme or a distinctive sound.

As for instance English (*b*, *s*, *t*) the English normal word – stress, the Chinese tones. Kan. p, *l*, *r*, *k*, *t*.

The number of spoken sounds is illimitable; but on the contrary the number of phonemes of a given language considered at a given moment is strictly limited. The phoneme is an unity which it is not possible to divide into smaller unities[33].

I pass on now to yet another problem. I have deduced a series of forms $\check{s}\ \check{k}\ h > \check{s}\ k'\ x' > \dot{s}\ t'\ \dot{s}$[34] in the Proto-Indo Iranian stage from the PIE *$g\underline{m}$-$s\underline{k}h\bar{o}$. In that connection, I have already pointed out how consonant groups have been eliminated either by accomodation or by insertion of vocalic elements in the course of the history of the Dravidian languages[35]. My deduction of the series of Proto-Indo-Iranian forms is proved to be valid as the phoneme $\underline{c}h$ in Lahnda is a palato-alveolar phoneme[36]. It appears to my mind worth while to investigate this phoneme in various languages. In Tokharian, the *c* sound is evidently a palatal affricative, roughly *tś*[37]. Muhammad SHAHIDULLAH has shown in his article 'Indo-European *kh* in Sanskrit and Avestan[38], that *chākā* < **chākhā* < Aryan **śhākhā* < Indo - European **khāqwhā*, whence Skt. *śakhā* (by GRASSMANN'S law of deaspiration), New Persian *śākh*, Armenian *cakh*, Lithuanian *śaka*, old Slavonic *sokha*, Gothic *hoha*, Indo-European *kh* (palatal) being = Aryan *śh* = Skt. *ch*, Avestan *ś* Germanic *h*, as opposed to Indo-European *skh* = Aryan *śśh* Skt. *ch*. Avestan *s*, Germanic *sk*[39].

It may be useful to remember here that 'parhaps in all Germanic speech, a succession of a stop plus spirant is spoken always in the affricate manner with the organs as far as possible in position for the spirant at the moment when the stop is opened'[40].

In Dravidian, at least in initial positions, *c* has been supposed to have the affricate value[41]. The view is also held that it is probable that the palatal occlusive phoneme in modern Kannaḍa and Tel., might have been originally an affricate[42]. We have yet to investi-

gate thoroughly the exact composition of the Kannaḍa affricates 'The plosive element of each seems to be alveolar or post-alveolar stop produced with the blade of the tongue; the fricative element which seems to have a palatal touch in it is rather a weak one'[43].

Led on to postulate in the sound-complex *śt'ś* of the Proto-Indo-Iranian stage the articulation of the predorso dentigingival occlusive-constructive phoneme[44], it occurred to me that we must investigate the affricate *c* in the aboriginal dialects of the Nilgiris. In February 1941 my student G. S. Gai and I investigated the Toda dialect. We were told by Prof. T. N. Sreekantia of Mysore that his analysis of the regular Mysore Kannaḍa pronunciation point to the conclusion that *c* is the blade sound i.e. the middle part of the tongue touches the back part of the teeth-ridge while it is bent making a sort of an arch and it was never the tip sound produced by merely touching the teeth ridge. For instance Kan. *muṭsu* 'to close' becomes roughly *muṭcu* (*muccu*) in the Mysore Kannaḍiga pronunciation

Our Toda informants at the Nilgiris invariably left the initial *h* in pronouncing the Kannaḍa word *huṭsu* (*huccu*) 'mad' and their *c* was the regular Mysore Kan., *c* (the so called blade sound of Prof. Sreekantia) perhaps in imitation. But in pronouncing the word *cākku* 'bag', however, our informants produced something like the dental spirant or, rather more precisely something like the articulatory sound-complex *t' s* (not the affricate *tś*) in which the occulusive element was maintained and the affricate (composite sound) was totally absent. This something like the articulatory sound-complex *t's* appears to be more like the articula-

tion of a single predorso-denti-gingival occlusive constructive phoneme. The results of our investigations are no doubt very tentative in this matter, and in the absence of Kymographic records nothing definite can be said. But even our very elementary investigations in this direction seems to negative the view that at least in initial position, *c* has affricate value in Dravidian. I may draw here your attention to E. H. TUTTLE'S opinion also that the originally simple phoneme *c* has later on become affricate resembling the intial phoneme in the English word *charge* and in spoken Tel., this palatal has become *ts* before a non-palatal vowel[45].

In passing, I might mention parenthetically that as SAPIR[46] points out -*ts* and *ts̆* (*ch* of *church*) need not be expected to develop analogously -even if *s̈* and *s̆* do[47]. Extensive field investigations in the aboriginal dialects like the Todas and the Badagas are therefore absolutely necessary to solve the problem referred to here.

Now I come to yet another interesting problem. Prof. A. N. NARASIMHIA has demonstrated that in Kan. *h-* < *p-* appeared first in the language of the 10th century A. D. and by the 16th cent. had established itself in inscriptions in almost all the words[48]. *h* < *p-* had already begum to disappear in the 13th cent., and has now entirely disappeared in the uneducated vernaculars. It is yet to be investigated whether this is the case in all the local dialects. In the Badaga language this *h-* still remains, but in the absence of a dialect atlas for Kan., as M. B. EMENEAU[49] rightly maintains, this survival of *h-* is of no use in dating the advent of the Badagas in the Nilgiris. No work has so far been

done on the different dialects of the Badaga language. Here is a rich field for ambitious workers to explore. On the dialect spoken in the neighbourhood of Kateri, no doubt some work has been done by M. B. EMENEAU who has given us an interesting article on 'The vowels of the Badaga language'[50]. But I need hardly point out that very much yet remains to be done in this direction. In this work, both your Institute and the department of Dravidian Linguistics of the Deccan College might happily collaborate.

There is indeed a necessity on which over-emphasis can not be laid, to study the Kan., phonetics and phonology from the modern scientific point of view. Excellent as the work of K. V. SUBBAYYA (A Primer of Dravidian Phonology, *The Indian Antiquary*, Vol. 38, 1909, pp. 159-170, pp. 188-200, pp. 201-221) is, we have to rewrite the Phonology of the Dravidian languages in the light of newer discoveries and fresh investigations. Here one wishes that our two institutions, along with sister institutions in India like the Mysore University Phonetics Association in close cooperation, will do, ere long, work of such a substantial nature as to place it on a par with the magnificent work done by D. T. JONES and Mark H. LIDDELL and OTHERS.

FOOT NOTES

1 Vide KOERBER, *Morphology of the Tibetan Language*, p. 19, fn. 1.

2 A. N. NARASIMHIA, '*A Grammar of the Oldest Kanarese Inscriptions*', Univ. of Mysore, 1941, p. 216. Hereafter abbreviated to GOKI.

3 GOKI, pp. 193, 217.

4 L. V. Ramaswami AIYAR, Causal words in Dravidian, *The Educational Review*, March 1928, p. 2.

5 C. R. SANKARAN and G. S. GAI, The Demonstrative Element *u* in Dravidian Languages, *Indian Linguistics*, Vol. VII, 1939. pp. 242-250.

6 GOKI, p. 151.

7 L. V. R. AIYAR, The Dravidian Radical uḷ, *Indian Linguistics*, Vol. I, 1931, p. 50.

8 C. R. SANKARAN and G. S. GAI, 'Some Ethno-psychological Features in Dravidian', *Bull., DCRI*, Vol. II, 1940, pp. 208-211.

9 *Indian Antiquary*, Vol. 61, 1932, pp. 3-5 and 25-30.

10 BSOS. Vol. 8, p. 813.

11 Cf. 'Active Voice in the Optative mood in Tamil verbs expresses request, injunction, wish and benediction,' P. S. S. SASTRI, *Hist., Gram., Theories in Tamil*, 1934, p. 181.

12 See *Vīracōliyam*-Kiriyāpadappaṭalam 9.
Cf. P. S. S. SASTRI, *ibid*, p. 181.

13 *Kaya votu ravvor ṟīṟṟa Viyaṅkōḷ*
iyalum itampāleṅgum eṉpa (*Ñaṉṉūl*, 338).

14 *Ka-ya- v-oṭu ra-v -v- eṟṟ -al -āl um -mār ai-kā ṉīṟṟa viyankōn muṟṟavai eytum -iṭ ɪm -pāl -eṅgum -eṉpa* (*ilakkaṇa Viḷakkam*, 239).

15 'The last two may be regarded as periphrastic formations. In addition to these it seems the form

ceyyāy was also used in the second person singular of the affirmative voice of the optative mood e. g. *Kāvāy kōvē* 'Oh king may you protect' (KAMPA *Rāmāyaṅam*, Ayodhyākāṇdam, 241, 41) (See P. S. S. SASTRI, *ibid*, p. 182.)

16 See P. S. S. SASTRI, *Tolk.,Coll.*,1-3 chapters, with English Commentary, 1937, pp. 30-31, Madras Oriental Series, No. 3, Vol. II, Pt. I.

17 GOKI, p. 213.

18 S. M. KATRE, 'Apropos Epic Iyāt, *Bull., DCRI*, Vol. I, 1939, pp. 8-13.

19 *Tall en Leven* 1941, p. 39.

20 *ibid*, p. 40.

21 Siddheshwar VARMA, *Jha Commemoration Vol.*, Syntax of the Dative Case in the Ṛgveda, pp. 435–456

S. M. KATRE, New lines of investigation in Indian Linguistics, ABORI, Vol. XX, 1940, p. 283.

See also E D. KULKARNI, Case Variation in the Critical Ed. of the Mbh. *Bull., DCRI.*,Vol. I, 1940. p. 325.

C. R. SANKARAN, An extended misapplication of the dative of Relationship in Tam., *Bull., DCRI.*, Vol. I, pp. 417–419.

22 GOKI, pp. 207–208. See also Jules BLOCH, La forme Négative du verb Dravidien. B.S.L. 36. p. 158. 1935.

23 Franz BOAS, *Handbook of American Indian Languages*, Bull. 40, Bureau of American Ethnology, Washington, 1911.

The Mind of Primitive Man, The Macmillan Co. New York, 1938, p. 172.

Cf. also my paper in the *Jour. of the Madras Univ.* Vol. II, 1939, p. 200.
Bull., DCRI, Vol. I, 1939, p. 415.
NIA, Vol. I, p. 744.
Bull., DCRI, II, 341–42.

24 GOKI, p. 135, e. g. m. *ṭārvvar -uṁ -āṉ* 'the brahmins,' n. *init–uṁ–āṁ* 'this much'

25 Cf. *Kaviley-um-ān* 'the cows.' (8th cent.)

26 GOKI, pp. 96–105. There is general tendency in the last syllable of a word when preceded by a long vowel and in the terminational element; *ibid.* p. 144.

27 Morris SWEDESH, The Phonemic Interpretation of Long Consonants, *Language*, Vol 13, 1937, p. 10.

28 *Bull., DCRI.*, Vol. II, 342–50. Vol III. No 3. March, 1942. pp. 392–394.

29 C. B. BAZELL, On Form and Function, *The Journal of English and Germanic Philology*, Vol. 37, 1938, p. 329.

We might remember here that certain conceptions like that of the nature of the phoneme make phonology teleological in character, thereby contributing to its marked contrast to phonetics which is essentially a physical, physiological and psychological discipline. Cf. A. ROSETTI, Sur la définition du phonéme. *Bull., Linguistique.* Vol. VII, 1939, p. 104.

Undoubtedly this raises the general question of the exact bearings of teleology to linguistics which I attempted to briefly discuss in a paper published in the *Ross Vol.* (pp. 359–361). On the subject of the relation of Science itself in general to teleology,

I shall content myself here in quoting J. S. HALDANE and W. M. URBAN. Says the former (*The Science and Philosophy, Gifford Lectures*, p 92) 'The very nomenclature of biology embodies the conception that life, in whatever form it may occur, occurs as a specific whole in which the parts and actions are essentially related to one another and cannot be isolated without destroying their nature'. Commenting on this W. M. URBAN (*Language and Reality*, p. 526) observes 'in the same context J. S. HALDANE makes it clear that the very essence of these wholes is to be self-regulative. All this is of course, a form of teleology, although not the kind of teleology which necessitates a *conscious* agent adapting a means to a consciously desired end. The important point, however, for our present purpose is that only by such nomenclature-by means of a teleological symbolism-can the nature of the living be expressed.'

30 VACHEK, Phonemes and Phonological Units, *Travaux du cer le Linguistique de Prague*, VI, 235, 235 ff.

VACHEK, Can the Phonemes be defined in terms of time ? *Mélanges van Ginneken.*

31 C. E. BAZELL, 'Archimorpheme' and 'Phonomorpheme' *Modern Language Notes*, Vol. 53, 1938, pp. 363–64.

32 L. BLOOMFIELD, A set of Postulates for the Science of Language, *Language*, Vol II, 1926, pp. 155–57.

33 A. ROSETTI, Sur la définition du phonéme. *Bull. Linguistique*, Vol. VII, 1939, p. 103.

34 C. R. SANKARAN, IE*gm-$\widehat{s}kh\bar{o}$' or *gm-$\widehat{sk}\hat{o}$. *Indian Linguistics*, Vol. VIII, 1940–41, pts. 2-3, p. 105.

35 Cf. *ibid*, fn. 24, See also BLOCH, BSL, XXV. I, p. 6. P. C. BAGCHI, *Pre-Aryan and Pre-Dravidian in India*, Calcutta, 1929, p. 41.

36 See Siddheshwar VARMA, *Journal of the Royal Asiatic Society of Bengal*, II, 1936, Letters, p. 72.

37 Vide E. SAPIR, Tibetan influences on Tokharian, I, *Language*, 12 1936, p. 260 fn. 3.

38 *Indian Historical Quarterly*, Vol. IX. p. 131.

39 See Muhammad SHAHIDULLAH, *Presidential address to the section of Philology and Ind. Linguistics to the All India Oriental Conference, held at Hyderabad, December, 1941*, p. 9.

40 L. BLOOMFIELD, Initial (k) in German, *Language*, Vol. 14, 1938, p. 179.

41 L. V. Ramaswami AIYAR, Linguistic "Preservations" in Malayāḷam, JORM, pp. 3–4. XI. 1937 and 'Tuḷu initial affricates and sibilants' QJMS, XXII, 1932, pp. 259–73.

42 E. H. TUTTLE, Dravidian S. *American Journal of Philology*, Vol. XL, 1919, p. 77.

43 Cf. T.N. SREEKANTAIYA, English as the Kannadiga speaks it, *Bull., of Phonetic Studies*, Mysore, No 1, Oct. 1940. p. 15.

44 The terminology is taken from E. F. HADEN, *The Physiology of French consonant changes. Language Dissertations*, No. 26, Supplement to *Language*, Vol. 14, 1938, p. 41.

45 E. H. TUTTLE, Dravidian Researches, *The American Journal of Philology*, Vol. L, 1929, p. 138.

46 SAPIR, Sound patterns in Language, *Language*, Vol. I, p. 51, fn. 9.

47 In a masterly thesis on the definition of the phoneme TRUBETZKOY (D'une theorie des opposition Phonologiques *Jour., de Psych.*, Vol. 33, pp. 5-18, 1936) points out the difficulties attendant on a rigid procedure for determining phoneme membership. On p. 6 he expresses the difficulty of determining whether the German affricate *ts*, is to be viewed as a single phoneme or as a group of phonemes. ZIPF therefore raises the question (*Language*, Vol. 13, p. 67, fn. 13) 'Is all quantitative research on any aspect of the phoneme to wait until this point is settled?'

48 The History of p in Kanarese, BSOS, 8, 673–80; also GOKI, pp. 1–22.

49 M. B. EMENEAU, The vowels of the Badaga Language, *Language*, Vol. 15, 1939, p. 43.

50 *Language*, Vol. 15, 1939, pp. 43-47.

Continuation of footnote 4:

[Contrast the intervocalic-*g* - of *āgu* with the intervocalic- *kk* - of *ākku*. See Jules BLOCH, Les consonnes intervocaliques en Tamoul, MSL. Vol., 19. 1914, pp. 85-90.]

LECTURE II

In continuation of my first lecture, I propose to formulate now a few fundamental problems in Syntax and Semantics which we have to tackle if we wish to lay solid foundations for a new line of approach to Kannaḍa Linguistics.

First I take up semantics. It is necessary to take up the language of all the inscriptions from the 6th century down (along with the language of the classical works like the *Voḍḍārādhane* and the *Kavirājamārga*) to the language of the present day for a complete study of semantics. The oldest Kannaḍa inscriptions could be classified conveniently into several groups, say, each group covering up a period of 50 years. So also the Kannaḍa of classical works. We have to arrange the vocables in each of these groups in chrnonological order and by further classifications as, say, (1) the emergence of new concept–symbols corresponding to the formation of new concepts. (2) Vocables of a more discriminating application corresponding to the conceptual progress of the speech–community in question in greater *precision*. (3) Vocables more frequent and of general usage corresponding again to the conceptual progress of the speech-community in question in greater *felicity*. In all these classifications, what ought not to be overlooked is the relative chronology. I refer you to the important contribution of John Taggart CLARK[1] in this connection. His work '*Lexicological evolution and conceptual progress*' is highly suggestive and on these lines it will be profitable if Kannaḍa scholars begin to work. Here I venture

further to place my ideas in regard to this matter in some detail.

In each of the groups covering up a period of 50 years, taking up first the oldest Kannaḍa (from the 6th cent., to the 10th century inculding the classical works), the speech forms in each of the groups could be classified into four classses :–

I. Those which may remain in modern Kannaḍa without change of meaning. e. g. *Kal* 'stone', *mane* 'house', *ele* 'leaf'.

II. Those speech-forms which are current in modern Kannḍa but with change of meaning.

III. Those speech-forms which have become obsolete, being replaced by synonyms. e. g. *appar* 'will become' replaced by N. K. *āguvaru* (*āgu*) (GOKI p. 276). *pugilu* (8th century) 'deceipt' replaced by *mōsa* (N. K,) cf. Tam. *mōcam*. It must be remembered here that Tam. *mōcam* in the sense of deceipt, treachery, bears a meaning quite foreign to the Skt. *Moṣam* 'theft' with which it seems to be connected. (M. COLLIN'S *Dravidic Studies*, Univ., of Madras, No. 3, p. 56)

IV. Those which have become obsolete and whose meanings can no longer be expressed by synonyms.

It has to be found also how many words are cited for all the groups occurring how many times and how distributed. Thus so many class I words occur X times, so many class II words occur Y times, so many class III words occur M times so many class IV words occur N times. Then of the so many class I words how many belong to each group has to be stated. Thus

if *a* is the total number of class I words.

b II

c III

d IV

Then *a1*, may be found in the first group, *a2* in the second group, *a3* in the 3rd group, *a4* in the 4th, *a5* in the 5th and *a6* in the 6th, *a7* in the 7th group, *a*8 in the 8th group, *a*9 in the 9th group, *a10* in the 10th group, *a11* may occur in all the groups, *a12* may occur only in certain groups, say one and two, *a13* may occur in certain other groups and so on....*ae* only in the first group, *af* in the 2nd group only and so on. We can then find out that words occurring a definite number of times or over that number giving the frequency of occurrence. For example the word W1 may occur *a* times, W2 *b* times and so on. We will be also further able to state how many words occur from what to what times, say, *n* words occur from *y* to *z* times and so on. We will not omit the number of words which occur once only. The variation of the average frequency of class I words according to occurrence in one, two, three, four, five, six, seven, eight, nine and ten groups must be found, e. g., of words found in all the ten groups so much percentage and so on and finally so much in each single group. Lastly the average frequency of all class I words, of class II words, of Class III and of of Class IV words has to be determined. I refer you in this connection to an important contribution of Prof J. T. CLARK, 'Lexicological Vitality in French'[2]. I shall like also to emphasise here that all the available lexicological data from the inscriptions and the oldest classical works would embody a fourfold classification from a different point of view.

(a) A chrnological classification, showing for each successive period all new words and all new meanings of old words;

(b) an etymological classification, grouping in chronological order all words according to their origin- popular, learned, borrowed or formational. I may draw your attention here to what Louis H. GRAY in a recent book says on Scientific Etymology- 'To make a scientific etymology, all the data, phonological, morphological, syntactic, and semantic both for and against, must be weighed; and evidence must be sought from non-linguistic sources wherever possible. It is not enough merely to consult grammars and dictionaries but the actual texts, wherever they exist, must be read in their original languages or dialects.' [L. H. GRAY, *Foundation of Language,* New York. 1939. p. 293] *Quoted in a review of the book by Norman W. DEWITT in *The classical journal*, Vol *XXXVII*, No. 3, 1941, p. 174.

(c) A derivational classification, showing for each primitive word, the chronological order of all words derived from it;

(d) an ideological classification, showing for each conceptual category the chronological succession of new distinction.[3]

Statistics on the frequency of occurrence and generality of usage of words in different periods are of unquestionable value for the psychological interpretation of lexical growth and tendency. We have to investigate the relation between the relative frequency of occurr-

ence (and generality of usage) and other lexical features such as age, etymological origins, continuity of usage and derivational fertility.[4] What we have to remember first and foremost in these investigations is that for words which have undergone change of meaning, it is obviously most important to have citations in sufficient number and sufficiently near in time to show the successive shadings of this change.

Coming to syntax, it will be fundamental contribution, if we could prepare an ergonic d chart for all the periods of the Kannaḍa language. This should contain an infinite number of units, grouped on mathematical grounds into three types.

1. Minimals– units which can not be subjected to further analysis (abbreviated to *m*) e.g. *Kal.* 'stone', *mane* 'house' and *huli* 'tiger'

2. Sun groups (abbreviated to *s*) – two or more lists of units collectively considered. This is for the sake of conciseness. Ex :– instr., sg., suffixes in Kannaḍa which I am presently discussing in yet another connection.

3. Product groups (abbreviated to *p*)–two or more lists of units used in combination with each other. *addān aḷivōrum aḷival paḷcidōr manade nenevōrum aḷimen endu upādēśam koḍuvōruṁ pancamahāpātakasaṁyuktar appar*, 'Those who ruin that, or whisper its ruin, or think it in the mind, or advise others to ruin it, are guilty of the five great sins' (GOKI, p. 244).

Here the conj., suffix *-um* in association with other speech forms like *aḷivōr*, *nenevōr*, *koḍuvōr* make product groups. Similarly the gender suffix *-on* with

aḷi 'to destroy' make the product group *aḷivon* 'he who destroys'.

Each of the three types of groups *m*, *s* and *p* ought to be classified according to their function, upto a series of numbered categories, or lists.

The object of ergonic synthesis is the combination of the elements of each minimal list with other units in such a way as to produce *p*– units and the successive combination of such *p*– units with others so as to arrive at an unlimited number of complete sentences: what constitutes therefore the process of Ergonic analysis is the reductiou by means of symbols and formulae, complete sentences to their minimal parts. In other words, the conversion *of m*– units into *p*–units is the ergonic synthesis while the conversion of *p*– units into *m*– units constitutes ergonic analysis. A complete scheme of ergonic analysis consists of reducing the PI of the Kannaḍa language to its *m*– values.

The ergonic chart will show the main syntactical divisions of the language, the subdivisions of each of these and their further subdivisions down to the smallest units, which can conveniently be shown on a chart of these limited dimensions. This chart will be found to consist of a definite number of rectangular panels each of which will be designated by one or other of a definite number of ergonic symbols. The basic assumption is that each panel should contain that list of units for which its particular symbol stands. Therefore the processes of synthesis and analysis should be given in a spatial form. A definite number of possible factors of a sentence – say, for example *s1*, *s2*, *s3*, *s4*, *s5*, and *P1* may constitute that panel serving as a framework

for the whole. It is therefore a product panel, and is to be designated by the symbol PI. Each of the component panels is buiet of smaller panels. Some of these contain minimal units only; the others (sum and product panels) are themselves built up of still smaller panels. By this process of dichotomy we can arrive ultimately at the last of the minimal panels and thus complete our analytic survey. Owing to extreme condensation, the chart may be compicated in its appearance. Again as in this concise expose this one chart has to serve all purposes, the chart is bound to be complex. First and foremost the catalogue of units– minimal groups, the sum groups and the product groups– must be first prepared. I do not suggest the task is easy nor do I think that we can immediately plunge into it, but I am sure that you are convinced that such a thing as the preparation of the ergonic chart for the entire Kannaḍa language is absolutely necessary.[5]

Otto JESPERSEN[6] has recently made an attempt 'at devising a system of succinct and in part self–interpreting syntactic formulas.' He shows how 'by means of letters, chiefly initials of ordinary grammatical terms, numerals, and a few more or less arbitrary signs it has been made possible to denote all the most important *interrelations of words and parts of words in connected speech*, even some which are hardly touched upon in ordinary grammars.' 'The symbols', Otto JESPERSEN introduces, 'resemble to some extent the wonderful system of symbols which during the last few centuries has contributed so much to make mathematics (and in some degree logic) exact and more easy to manage than was possible with the unwieldy word–descriptions

used formerly.' JESPERSEN takes examples from Danish, Dutch, French, Finnish, Greek, Italian, Latin, Portuguese, Russian Spanish and Swedish. It would be profitable if we add to this list examples from Kannaḍa and other Dravidian languages and see whether we can not improve and perfect the attempt of JESPERSEN in the light of the syntactical phenomena of our languages. I shall discuss here briefly the ideas of form, function and notion and the terminologies to be used for purposes of illustration. The following diagrams contain (a) form (b) function, (c) Notion. One example of function is Tamil and Kannaḍa instrumental singular. [See G. U. POPE, *A Handbook of the ordinary dialect of the Tamil Language*, Oxford University Press, 7th edition. London, pp. 165–167, Articles 239, 240 and 241.]

A	B	C
Tam. *-āl*	Instrumental Singular	The idea of agent *avaṉāl ceyyappaṭṭatu* 'It was done by him' (Tam.)
Tam. *-oḍu*		The idea of 'with' *avaṉōḍu pōṉēṉ* 'I went with him.' (Tam.)
Tam. *-uḍan*		The idea of 'together' *avaṉuḍaṉ pōṉēṉ*. (Tam.)
-im	-do-	OK. *adhikāradim, besadim*, 'by authority' or 'by command.'
-in	-do-	OK. *sukhadin* 'with happiness'
-inde(Old Kannaḍa suffix found by G.S.GAI, 8th cent. inscriptions).	-do-	OK. *celvinde* 'with beauty'
-indu (GOKI, pp. 139-141)	-do-	OK. *vidhānadindu* 'indicating.'
-oḍane	-do-	NK. *Rāmanoḍane nānu hōdenu* 'I went along with Rāma'

-inda (H. SPENCER, *A Kannarese Grammar*, Mysore, 1914, pp. 80–81)

OK. *anumatadinda* 'by or with consent'

NK. (a) agent, with passive verbs, ex.: *Ī lokavu dēvarinda nirmisalpaṭṭitu*
'this world was created by God' (SPENCER, p. 203)

(b) the instrument by which an action is performed, ex. *Kattiyinda avarannu kondu hākidanu*
'he killed them with the sword.'

(c) The material with which a thing is made, ex. *avaru maṇṇininda gōḍeyannu kaṭṭiddāre*
'They have built a wall of mud'.

(d) Motion from a place : ex. *ātanu aramaneyinda obba Javānanannu nanna hattirakke kaḷuhisidanu*
'he sent a peon from the palace to me'.

(e) Lapse of time. ex: *nānu ondu vāradinda ninnannu nōḍalilla*
'I have not seen you for a week'.

(f) Distance. ex: *ā dēśavu ī dēśadinda dūravāgide*
'that country is distant from this (SPENCER, p. 182, fn. 1)

(g) A quality of condition of being or action. ex. *nāvu kˢmadinēda iruttēve*
'we are in health'.

ex. *avaru vivēkadinda mātanāḍuttāre*
'they speak with discrimination (SPENCER *A Kan., Grammar*, pp. 80–81).

Let us look at each of the columns separately and the terminology to be used for each. I shall merely quote JESPERSEN here as in my opinion his language can not possibly be bettered.

'Linguistic science has of late years been extremely fertile in new technical terms, but unfortunately there has been no real agreement as to the exact meaning to be ascribed to some of them, even if one and the same term is used by various scholars. There has been a lively discussion on the word phoneme, but that is outside the scope of this volume. Morpheme, however, must be mentioned here because it would be used by many linguists with regard to column A.'

'To NOREEN (perhaps the first to use the term) *dreieck* and *dreiseitige gradlinige figur* are each of them one morpheme, but these two morphemes mean the same thing and are therefore one and the same sememe.'

'Marouzeau: element de formation propre á conférer un aspect grammatical aux éléments de singnification; this may be an isolated word (preposition, etc.), but generally the term is used for "éléments de formation qui s'ajoutent á la partie fondamentale du mot.'

'Vendryes: morpheme is a linguistic element which expresses the relation between the ideas, thus the syllables or sounds added to the root to show the role in the sentence; also the vowel-change in *man:men*, in some languages accent and word-order; he and other French grammarians recognize a "morpheme zero", e. g. in the plural *sheep*.'

'The Prague cercle de Linguistique (4. 321): unité morphologique non-susceptible d'être divisee en unités morphologiques plus petites c'est-â-dire une partie de mot qui, dans toute une sèrie de mots, se présente avec la même fonction formelle et qui n'est pas susceptible d'être divisee en parties plus petites possedant cette qualite.'

BLOOMFIELD (Language): morpheme is the smallest meaningful unit (lexically); he recognizes in "Poor John ran away" five morphemes: *poor, John, ran, a-* and *way.* "The total stock of morphemes in a language is its lexicon."'

'ZIPF (*Psycho-Biology of Language 15*) reckons as morphemes prefixes, roots, suffixes and endings; in *un-tru-th-ful-ness* we have five morphemes.'

'FIRTH (*Speech* 49) seems to reckon among morphemes only prefixes and suffixes.'

'J. R. AIKEN (*New Plan of English Grammar*): morpheme is an empty word which plays the same role as a flexional ending- a suffix thus is no morpheme.'

'Thus, according to the writer whose definition we prefer, we have to say that *untruthfulness* is one morpheme, or five, or four morphemes. According to one *drank* is one indivisible morpheme, according to someone else, the vowel *a*, which makes this preterit distinct from the infinitive, is a morpheme, but what then is *dr-nk?* And if I exclude the "root" or "stem" from being called a morpheme, am I to say that in the three plurals *wishes, locks, screws,* in which the sound changes automatically according to the final sound of the "root", the ending is one and the same morpheme or three different morphemes? And if the same three

forms occur again as the third person singular of the corresponding verbs, is that again the same or a different morpheme? What about *knives*, in which the final sound of the "root" is changed as against the singular *knife?* Is it (*z*) or the change of (*f*) to (*v*) + added (*z*) that is here the morpheme? Or the whole form *knives?* And when English plural forms are used for the genitive as well as for the "common case" (for the orthographic trick of adding an apostrophe has of course no real linguistic value)- are we to say that we have here added to the common case plural a "morphème zéro?" I can see no way out of these and other difficulties except the simple one of avoiding altogether the use of so polysemous a word as morpheme.'

'The curious thing is, namely, that no such term as morpheme is wanted to describe what is placed in column A: "form" and "change of form" together with a precise indication such as "ending so and so", "vowel change", "the preposition so and so", "word-order" are quite sufficient and have been found so by all grammarians up till quite recent times.'

'The term *formans* used by BRUGMANN (IF 14.1, *Kurze vgl. gramm.* 285) seems to me much better than *morpheme,* as it can never be applied to the ready word, but only to affixes (prefixes, infixes, suffixes); but even then there are some terminological difficulties: is *a* in *drank* (or the vowel-change *i* /*a*) a formans? Is word-order, in "empty word" a formans?'

'As a complementary term opposed to morpheme grammarians use the word *sememe* or *semanteme*; but the meaning of this seems also though to a lesser

degree, to be fluctuating according to the authors using it.'

MORPHOSEME

'The name "Function" chosen by me for column B is not very good, as this word is used outside the linguistic world in so vague and comprehensive a way that it is not fit to be used in the science of language in a special technical meaning as opposed to column C "Notion". As a matter of fact much or all of what is placed in C would be reckoned as "function" by most scholars. In column B we have the meeting ground of outer and inner- but this meeting is the essential characteristic of all linguistic activity, and column B might therefore be superscribed "linguistic centre" or "linguo-centre" : what we meet there are units which, as I said, Janus-like face both ways, towards form, and towards notion. A new word seems to be wanted, and I venture to propose MORPHOSEME : I should define a morphoseme as a linguistic unit standing at the intersecting point, where form and notion meet. A morphoseme may have one form, but generally has two or more forms; similarly it corresponds generally not to one notional idea only, but to several. It belongs to one definite language alone."

What is said above will suffice to give a clear idea of what this new term is meant to stand for. The term is also useful in being applicable to lexical units. In a dictionary we put together as "one word" various "paradigmatic" forms e. g. Kannada.

manuṣyanu 'man'

nom.	*manuṣyanu*
acc.	*manuṣyanannu*
inst.	*manuṣyaninda*
dat.	*manuṣyanige*
gen.	*manuṣyana*
loc.	*manuṣyanalli*
voc.	*manuṣyanē*

As examples may serve the Tam., Kan., verb *iru* "to be"

Tam., *irukkirēn* 'I am' Present tense
irrukkirāy 'you are'

irukkirān
irukkirāḷ } he, she, it is.
irukkiradu

Kan., *iruttēne* 'I am'
iruttī 'you are'

iruttāne
iruttāḷe } he, she, it is.
iruttade

Past tense

Tam., *irundēn* 'I was'
irundāy 'you were'

irundān
irundāḷ } he, she, it is.
irundadu

Kan., *iddenu* 'I was'
iddi 'you were'

iddanu
iddaḷu } he, she, it was.
ittu

'A variety of meanings belongs to each of these units, but these have nothing in themselves to do with the formal variety of stems making up the paradigm. In fact, one of the most surprising features of linguistic psychology is the development of units, which are felt as such, though neither from the outer nor from the inner point of view there would seem to be *a priori* any real unity.' What a fertile field is open before us– students of Kannaḍa and Dravidian linguistics– to investigate the way in which such grammatical and lexical morphosemes come into existence from the facts in our language.

Now I come to some of the other problems in Kannaḍa Linguistics. The problem of the Deśi words in Indo-Aryan and Dravidian is of absorbing interest and needs a very careful investigation before a linguistic research into the substrata of both I-A and Dravidian can be undertaken.[8] I may be permitted to refer here to a paper Prof. Mariappa BHAT read on the 'Deśya element in Kannaḍa' at the recent All India Oriental Conference (Summaries, pp. 265–266).

I draw also your attention here to the Marathi word *sāl* <*challi*, perhaps '*chad-li-* <**sq(h)-ed* 'cut' which can be easily compared with the Greek *skedānnumi* etc., Skt. *kṣadate* 'cuts' <**q(h)sed-* beside **sq(h)od-* in *skhadate* 'cuts to pieces' >**skhadla-* 'skin' in *khāla* (Skt. *Dhātupāṭha*)[9]. Now compare with these, Kannaḍa *callu* 'to throw'. The deśi word *cikka* 'small', Maraṭhi *cike* 'for a little' may be from Skt., *chid* to cut or Dravidian *ciṟu* (Tam.)[10] 'small'. These examples are sufficient to make one realise the importance of the problem. GRIERSON[11] has treated the

root substitutes or dhātvādeśas of the Prākrits. They are either traceable to old Indo-Aryan bases etymologically or Deśi vocables incorporated within Middle Indo-Aryan. A study of these vocables, as Prof. KATRE (S. M. KATRE, Some problems of Historical Linguistics in Indo-Aryan. *Bhāraīya Vidyā*, Vol. 2, 1941, p. 224) remarks, as found in their inherited forms within I-A, Dravidian and the Austro-Asiatic families will help in the determination of their real nature. I have necessarily to draw your attention here in passing to R. S. PANCHAMUKHI'S paper 'Relationship between Prākrts and the Kannaḍa language' submitted to the recent All India Oriental Conference held at Hyderabad (Summaries, p. 270)

> I give an example.
>
> We find the word *maṭacī* in the *Chāndōgya Upaniṣad* (I, 10. 1). *maṭacī hateṣu kuruṣv āṭikya saha jāyayā*
>
> *uṣastir ha cākrāyaṇa ibhya- grāme pradrāṇaka uvāsa.*

Here the devastation of the Kuru country caused by the *maṭacī* and the consequent poverty of the village in which Uṣasti Cākrāyaṇa lived are spoken of. K. B. PATHAK[12] pointed out that the word is a Sanskritised form of 'the well known Dravidian word *miḍiche*'. It is a Kannaḍa word which means 'grasshopper, locust.' KITTEL in his *Kannaḍa dictionary* has compared this word with other Dravidian words for 'locust' e. g. Telugu- *miḍutha*, *Malayalam- veṭṭal* or *viṭṭal* and Tamil *veṭṭukkili*. PATHAK believes that all these words are derived from a common root *miḍi* 'to hop.' To

establish his theory of Dravidian influnce on the Sanskrit language, Prof. D. R. BHANDARKAR[13] made use of this suggestion. How can one explain the changes in the vowel and the final consonant if we equate the Kannaḍa *miḍiche* with the Telugu *miḍutha?* Is it also easy to say that the Malayālam and the Tamil words are really related to the Kannaḍa speech form *miḍiche?* The problem is certainly more intricate than it appears to be at first sight. P. C. BAGCHI[14] points out that the word is met with in different Iraniyan dialects and therefore there is sufficient ground for our supposition that it was present in the common Indo-Iranian. GAUTHIOT[15] shows that the speech form **mas ax* (old **ma sakha*) is special to the language of Northern Persia- the Arsacidan language. It is also found in the Armenian loan *marax, Hubschmann- Pers., st.*, p. 100 and MEILLET, MSL, t. 17, p. 245. In a dialect of the South-west (Persian) we meet with the speech form *maig* <old **masaka* or *maska*. GAUTHIOT supposes the Persian speech forms *malax* <old **ma sakha* to be of Sogdien origin as in one of its dialects only 8 is known to have changed into *l*. Afghan *malax* and Brahui *malakh* may therefore go back to the same origin.

'All these forms are reducible (as P. C. BAGCHI[16] rightly observes) to ancient **ma saka* or **ma sakha* of which there was an old feminine form like **ma saki* or **ma sakhi* which in common Indo-Iranian was something like **madak'i*. It is probable that the dental underwent a cerebralisation on Indian soil and gave rise to the form *maṭacī*. The Kannaḍa word therefore appears to be a loan from the Indo-Aryan.' This

illustration is sufficient to show however fascinating the porblem is, the ground is very slippery at the same time.

The general principles Prof. KATRE[17] gives for the preparation of a historical dictionary of Sanskrit can with equal advantage be applied to the preparation of a historical dictionary of the old inscriptional Kannaḍa and then of the entire Kannaḍa language. I give here for the sake of convenience these general principles in Prof. KATRE'S own language substituting Kannaḍa where he says sanskrit.

'Let V stand for the individual vocable of Kannaḍa attested at different periods in the history of the language; S represents its significance and R the reference or quotable instance of the vocable with respect to a given significance. The totality of V, that is V1, V2....Vn where *n* represents the total number of vocables in the language stands for the whole corpus of the language in its basic form of vocables. It is the duty of the lexico–grapher to extend this *n* to its utmost capacity, taking the entire history of the language from its earliest occurrence to its very latest phases, with respect to all the R's, whether published or unpublished. The greater the R's the greater is the comprehensiveness of the Thesaurus. The research of the individual scholar will then concern itself with a given base V and its different semantic developments *S1, S2,....Sm* where *m* indicates the number of significance developed by V. The order of the numerals 1,2,.... *m* represent the natural development of the significance also, in its time–sequence.'

'The editorial activites will then be limited to the representation of V in its significances *S1*, *S2*.... *Sm* with reference to the R's arranged in their turn according to the chronological order so far as that has been or can be determind. Thus under the significance S1, there may be references like Ri, Rk, Rt where the letters *i*, *k*, *t* represent the period to which the citation belongs. Now *S1* need not always be attested in the earliest occurrence of the vocable V itself, and the function of fhe historical lexicographer is to correlate the S's with the R's and to explain such discrepancies as mentioned above in the light of comparative linguistics. Thus every V will have a number of citations for each significance S, and the earliest citation will always be given where possible, and similarly the latest citation also. In this manner we shall have, for the history of V itself, the limits of time determined for the currency of significance S.'

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'Moreover, in our symbology, V will represent the vocables as it appears by itself or at the beginning of a compound expression, and *v* as the non-initial member of a compound. The Thesaurus has to concern itself with V as well as *v*, for many times there may be a *v* without a corresponding V and its existence ordinarily will not be suspected as no efforts are made in the usual lexicons to indicate them in the alphabetical register. Under *v* will also have to be indicated other V's which form the initial member of compounds of which this *v* is the second or non-initial member. Again with every V or *v*, there are associated its morphological forms Vm or *vm* and these should also be indicated in the Thesaurus within the subgroup

S with citations to determine their space-time context. In a similar manner questions affecting Syntax and Stylistics will be dealt with on historical principles.'

The *indices verborum* should not be merely alphabetical registers, but rearranged in the dictionary form according to the method which Prof. S. M. KATRE has indicated for the individual research worker, namely the registration of all the V's aud *v*'s, the determination of all the S's and R's within the specified period with exact references.

In the preparation of such a dictionary of the Kannaḍa language your institute can happily collaborate with the department of the Dravidian Linguistics of the Deccan College Research Institute, Poona.

Indices verborum or period lexicons based on them can be published by these two institutions in happy collaboration. Prof. KATRE gives the important distinction between the *Thesaurus* and such contributory *indices verborum* 'Whereas the Thesaurus selects its citations with an eye to the space-time context with reference to R's and S's the contributory indices will be real *indices verborum* and therefore the very basis for such selection."[18]

The first and foremost need of Kannaḍa linguistics today is a series of uniform volumes which will indicate the present status of the science with respect to the linguistic grammars of the old, middle, and modern Kannaḍa. In need not say that the volumes should be addresed in such a manner as to be useful not only to the student of the Kannaḍa language in all the periods but also to the general linguist, modelled on

the justly famous *indogermanische Bibliothek* of the Heidelberg Uuiversity.[19] Before taking your leave, I come to one more problem that might interest you while we are on the point of discussing Synonymics Dictionary and its allied topics.

I have discussed elsewhere the onomatopoeic words for "father" and "mother" which are frequently found to be homophonous in languages remote from from one another whether geographically or structurally. I admit the possibility that in such instances historical links may exist, but at the same time I maintain also that it can not be denied that such forms are for the most part independent of one another. I only seek to emphasise here that where two or more different languages which apart from what appears from their dictionaries show intimate ties of former contact and have in common whole series of homophonous endearing words for various grades of kinship, we can not reject the idea of a mutual genetic link between such onomatopoeic terms without further consideration. This idea of mine seems to have a tool-value in that Prof. C. C. UHLENBECK admits that he is reminded of consonances of endearing words in general and children's words in particular between the Eskimo and the Primitive Indo-European.[20]

I give here a list of homophonous words for 'father' and 'mother' in a number of languages.[21]

Father.

Sumero-Oceanian : *ab.*

Melanesian : *o'fa, apa.*

Polynesian : *pa*, term of respect denoting father. *aba*, to respect.

Indonesian : *ṗa'*, *aṗai*, *aṗang*, *aba*, *ṗa*.
Mon–Khmer : *ṗha'* (?), *ṗa'*, *ṗā'*, *ṗā*, *ṗa*, *iṗa'*, *aṗa'*, *aṗa'*, *āṗe'*, *aṗā*, *ṗ̃a*, *aṗa*, "father" *āṗe'*, "good father."
Muṇdā : *aṗa*, *āṗā*, *āṗū*, *aṗṗā*, *ābā*, *bā*, *āṗāng*, *abbānī*, *ābañji*.
Tamil : *aṗṗā*, *appaṉ*.
Kannada : *aṗṗa*.
(see also P. RIVET, *Sumérien et Océanien*. Collection linguistique publiée par la société de linguistique de Paris. XXIV. Paris, 1929, pp. 41 and 46.)
Mundari : *āṗu*, *abbā*
Urāõ : *abbā* (see HAHN, *Kurukh Grammar*, Calcutta, 1900, p. 98)
Sumerian : *aṗ*, *abba*
Akkadian : *babu*, *aṗu*
Egyptian : *ab*, *ṗaṗa*
Tamil : *aṗṗan*, *tagaṗṗan*
Mal : *aṗṗan*
Tel : *abba*
Badaga : *aṗṗa*
Coorg : *aṗṗu*
Khon : *abba*
Tamil : *attaṉ*
Hittite : *at–ta–aš* (See my paper, *Bull., DCRI*, Vol. I, pp. 390–93)
Kannaḍa : *ajja*
Tuḷu : *ajje*
Tamil–Mal : *accan* <Pkt. *ajja* <*ārya*
Tamil : *āñā*, *āñān* or *āṅṅāṉ* 'father'.
Arabic : '*Abun* 'the father' *Abā* 'the father.'

Urdu : *Abbā* (See *ibid* pp. 436–37).

Mother

Arabic : *um*

Sumero–Oceanian : *um, ama.*

Indonesian : *ma, uma amai, umai, yāma*

Mon–khmer : *amai, ma*

Munda : *umā, māe, māy, mā–in.*

Tamil : *ammā, ammai,* Cf. also *aññai* (*Śilappadigāram*, ed. 3, 1927, 9, line 23).

Kannaḍa : *amma*

Sumerian : *Eme*

Akkadian : *Ama, Amu*

Malayālam – Enadi–

Telugu : *Amma* (R. S. Vaidyanatha *Ayyar,* The Sumero–Dravidian and the Hittite-Aryan Origins QJMS, Vol. XIX, 1929, pp. 304–5)

While taking your leave now till tomorrow, I may be permitted to say that a Reallexicon of Indian Linguistics is a desideratum. The share Dravidian scholars must enjoy in this work should be large. It would be interesting if we collect as a preliminary work all the available linguistic material on home-industries. In this matter, I have made a very small beginning. I refer you to my paper on 'Dravidian words for 'plaiting' in the *Bulletion of the Deccan College Research Institute,* Vol. II, 1941, pp. 325–329. Here I give a few interesting words in that connection.

1. With the word *Kaṇagi* (p. 325 *Bull., D. C. R. I.,* Vol. II, 1941. 325) I ask you to compare *kaṇaja.* It holds paddy and it is seen in those parts of Karanaṭaka where there is heavy rain viz. Sirśi, (Kārwār),

Shiggavi, Bankāpūr, Kalghaṭgi, Ālūr and Hirekerūr talukas of Dhārwar district. It is made of bamboo split pieces, is open at both ends, is besmeared with dung all over to keep it air-proof. Another granary which is specially used in places where the rain-fall is very heavy is called '*Paṇata*'. It is a room made entirely of planks, standing at a height of 3 ft. from the ground. Paddy is dumped in from above and is taken out from below where there is a small opening. It measures roughly 8' by 10'. Another granary made of burnt earth and is shaped like a big portable vessel with a narrow neck, is called '*Ranjaṇigi*'. In dry places corn is stored in underground cells. These are called *Hage*. '*Aṭṭala*' is another type of granary much in use in wet parts of Karnāṭak and is quite similar to *Kaṇaja* but is built on 4 wooden beams placed about 3 ft. high over the ground and is covered over with a sloping grass roof. *Kaṇaja* is built within and *Aṭṭala* without the house. *Gaḷige* is a sixth variety of granary. It is a miniature *Kaṇaja*.

2. Plaiting— *Heṇe* means to Plait. From this is derived the word *Heṇilu* or *Heḷalu* meaning the braid of hair of woman, because it is plaited.

Incidentally I may refer to the following also.

3. *Nūlu*— to prepare yarn from carded cotton. It is not used in the sense of to write. (See *Bull., D. C. R. I.* Vol. II, pp. 334-37)

4. *Taṭṭi*— mat made of split pieces of bamboo, either thick or thin. (*ibid*, p. 326).

5. *Bare*— to write. The instrument for writting is called *Kaṇṭa* (Haḷe-Kannaḍa) cf. *Lekkaṇike* (Sans., *Lēkhanī*). *Ṭāku* (Mar.) *Galagu* (reed). (*ibid*, p. 333)

FOOTNOTES

1. University of California Publications in Modern Philology, Vol. 7, No. 4, pp. 175-200, September 21, 1918, see especially p. 188.

2. *Transactions and Proceedings of the American Philological Association*, pp. LXXL-XXI, Vol. XLIII, 1912.

3. See J. T. CLARK, *Lexicological Evolution and Conceptual Progress*, pp. 198–199.

4. For many suggestive observations on this general subject, one may with profit refer to H. DARMESTETER, *La vie des mots*, Paris 1899.

5. For an exposition of the ergonic theory and its technique, I would like to refer to Harold E. PALMER'S "*The Scientific Study and teaching of Languages*" pp. 282-308.

6. *Analytic Syntex*, London, 1937.

7. Otto JESPERSEN, *Analytic Syntax*, pp. 106-108

8. See S. M. KATRE, Reduplicatives in Indo-Aryan, p. 60, fn. 3, *Bull. D. C. R. I.*, Vol. I, 1939.

9. R. L. TURNER, *A Comparative Etymological Dictionary of the Nepali Language*, p. 196.

10. H. Narayana RAO, Etymological Research in Kanarese and Marathi, *Journal of the Bombay Branch of the Royal Asiatic Society*, XXV, 1921, p. 494. Here attention may be incidentally drawn to Jules BLOCH'S interesting paper, Une Journure Dravidienne En Marathe ' BSL, Vol., 33. pp. 299–306.

11. The Prākṛt Dhātvādeśas according to the Western and Eastern Schools of Prākṛt Grammarians,

Asiatic Society, Bengal, 1924. See also S. M. KATRE Sanskrit Ks in Pali, *Journal, Bihar and Orissa Research Society*, Vol. XXXIII, 1937, Part I. p. 9.

13. *Carmichael Lectures,* 1918, p. 28.

14. Some Linguistic Notes, *The Indian Historical Quarterly*, Vol. IX, 1939, pp. 253-254.

15. *Grammaire Sogdienne*, Introduction, p. ii.

16. P. C BAGCHI, Some Linguistic Notes, IHQ Vol. IX, 1933, p. 254.

17. S. M. KATRE, On a Thesaurus Linguae Sanscritae, *New Indian Aniquary*, Vol. IV, 1941, p. 274

18. *ibid*, p. 276.

19. See S. M. KATRE, On the Present Needs of Indian Linguistics, *Poona Orientalist*, Vol. VI, p. 5.

20. See my paper, *Bull., D. C R. I.*, Vol. I, pp. 390-393, C. C. UHLENBECK, *Taal en Leven,* Sept. 1941, p. 40.

21. *Bull., D. C. R. I.*, Vol. I, 1939. pp. 392-393. pp. 436-437 also.

22. I am indebted to Mr. H. G. BENGERI a student of the Archaeology department of our Institute for drawing attention to these words current in Bombay Karnataka.

SOME PROBLEMS IN KANNADA LINGUISTICS

LECTURE III.

I mentioned in my first lecture that the problem of the middle demonstrative is an ethno-psychological problem (p. 3). When we say that certain speech phenomena are ethno-psychological in character, we mean that those phenomena reflect the psychology or the mental habits of the races. As some mental habits and traits of different races do resemble, it is a matter of no surprise that their reflections in human speech make certain agreements between wholly unrelated languages possible. The term 'ethno-psychology' should not lead any one to suppose that a correlation between language and race is sought to be established here. It is a fundamental and governing idea in Modern linguistics that no such correlation does ever exist. Certain speech-phenomena among totally unrelated families of languages to strikingly reveal certain deep rooted similar (if not, identical) mental habits of the different speech-communities. It is these mental habits which are comprised under the term 'ethno-psychology'.

The term is first used before us by Prof. C. C. UHLENBECK who in discussing certain special agreements between the Wiyot and the Yurok, points out that these features are purely of an ethno-psychological kind whose parallels might eventually be traced in wholly unconnected families of languages spoken in other parts of the world. Ethno-psychological features comprise phonological, morphological and syntactical *deep rooted* parallelisms (*not superficial*) between

entirely unrelated families of human languages. An exhaustive study of these ethno-psychological features may perhaps ultimately lead to a correct understanding of some of the fundamental *psychological laws* governing human speech.

Here I may take liberty to give a few lengthy quotations to impress upon your minds the concept of ethno-psychology; I may parenthetically add here that the authors of these quotations do not appear to have formulated the concept of 'ethno-psychology' as it is attempted here.

'It cannot be taken for granted, that (all) words which on account of their phonetic structure and the nature of their concepts may easily be associated with each other, must on that account (alone) go back to a common source. They may not be related historically at all, and only appears so because they started from similar (not necessarily identical or historically connected) sources and underwent similar semantic developments".[2]

"In the measure the growing capacity for analytical particularization tends to show correspondence in the psycho lexical ovolution of different peoples, both as regards ideas expressed and the order in which they have received expression, we may hope to ascertain more or less clearly those factors and forces of mental growth that are characteristic of mankind in general rather than of particular peoples".[3]

"In comparing the lexicological evolution of different peoples, we may expect to find correspondences both as regards the main types of conceptual

classification and as ragards the order in which these types have tended to receive expression, and upon the basis of such correspondences as are found to be most regular, frequent and general, we may ultimately hope to determine more clearly those fundamental laws, principles or tendencies underlying the growth of conceptual intelligence in general "[4].

"The extent to which the growth of conceptual intelligence is governed by fundamental laws, principles or tendencies, is a question to which an ultimate solution will be found, if found at all, in the testimony of comparative lexicology. That such laws, principles, or tendencies exist, and that they are no less constantly and fundamentally operative in the evolution of superperceptual than of perceptual ideation, there seems little reason to question. The striking uniformity already observed in the mentality of primitive peoples, the fact now recognised by all evolutionists that all mental growth from the lowest to the highest levels is of unbroken continuity, the enormously long period that must have elapsed since the earliest manifestation of human speech, a period compared with which the date of our earliest records is but as yesterday and most of all the inherent nature of the conceptual process itself, lends strong support, to such a view "[5].

I may mention here that forms for 'fire' and 'heat' are remarkably alike basically in three different language families viz. Dravidian, Oeeanic and Sumerian.

(1) *tu, ti.* (2) *ve, voe* (3) *kăy, ki*

are the three groups to be taken into consideration here.[6]

I am giving below some of these ethno-psychological features from the point of view of Kannaḍa. I am grouping them here under the heads *Phonology*, *Morphology* and *Syntax*. Some of them were already listed by me and my student else-where[7].

There are certain languages whose phonological feature might present patterns like the two illustrative languages C and D of *Sapir*[8] as opposed to A and B which may have identical sounds but utterly distinct phonetic patterns. Genetic speculation at first sight with regard to these two languages C and D is permissible. As a result of such a speculation, we will be led to the inevitable conclusion that on general principles the pattern-resemblance between them is an index of genetic relationship[9] while the phonetic similarities between A and B (perhaps contiguous languages) are due to historical contact. Attention must necessarily be drawn to an interesting paper of Franz *BOAS* (' Classification of American Indian Languages' in *Language*, Vol.5, No. 1, 1929, pp.1-7. See also Franz *BOAS*, *Race, Language and Culture*, New York, 1940, pp. 219-225). He points out cases in which contiguous languages though different in structure and vocabulary, exhibit in common striking morphological peculiarities that must have spread by borrowing from language to language.

A :	a	((-)	(e)	i	u	(o)	(ɔ)	
	(a·)	((-)	(e·)	i·	u·	(o·)	(ɔ.)	
	ſ	h	w	y	l	m	n	(n)
	p‘	t‘	k‘					
	p	t	k					
	(b)	(d)	(g)					

(·) s x
(v) (s) (z) (y)

but B : a (- e i u p ɔ
(á) ((-) (e·) (i·) (u̇) (ɔ·) (ɔ·)
(') h (w) (y) (l) m n n
p t k
(p‘) (t‘) (k‘)
b d g
(f) (-) s (x)
c 8 z y

‘The true or intuitively felt phonetic systems (patterns.) of A and B are :

A : a i u
a· i· u·
' h w y l m n
p t k
p‘ t‘ k‘
f (-) x s

B : a e i u o ɔ
h m n n
p t k
b d g
s
v s z ‘y

which show the two languages to be very much more different phoneticallv than they at first seemed to be.’

‘C and D are languages which have hardly any sounds in common but their patterns show a remarkable one to one correspondence. Thus :

C:	a	ə	i	u	
	a·	ə·			
	h	w y	i	m	n
	p	t	k	q(velar k)	
	b	d	g	ġ (velar g)	
	f	s	x	ẋ (velar x)	
D:	ä	e	i	ü	
	ä·	e·			

h v j (as in French *jour*, somewhat nearer to Tam. - Kan. *l*)

			r	m	n
p‘	t‘	k‘	q‘		
B	s	y	ẏ (velar)		ʔ
f	ṡ	ẋ	ḥ (laryngeal h)		

‘ Why should D’s j be supposed to correspond to C’s y when it is merely the voiced form of *ṡ* ? Should it not rather be placed under *ṡ* precisely as, in C’s system, b is placed under p ?’

I may point out here that in a discussion with Prof. Siddheshwar VARMA and K. Goda VARMA at the All India Oriental Conference in December 1941, I learnt that the sound-patterns of the Kashmiri dialects and the Dravidian languages illustrate the hypothetical alignment of two languages like A and B with phonetic similarities which we have taken for our argument following E. SAPIR.

But caution is necessary in the matter of such a speculation. We ought not to yield to the temptation of indulging in it too far. It is only a very small number of phonological features among languages which might present patterns like C and D which can really go to establish genetic relationship between the languages under discussion.

As examples of such phonological parallelism (we may designate them also as Semanto-phonetic parallelisms)[10] we may take.

I JINGLE FORMATION :—

S. M. KATRE (*Bull. D. C. R. I.*, Vol. I, p. 64) has pointed out that in Prākṛts we find jingle words where only one part of the reduplicative has some significance and the other a rhyming, echoing or jingle element. The same thing we find also in Kannaḍa and Tamil.

Kan. *Nārāyaṇanembavana kāṇe, Girāyaṇanembavana kāṇe* which means " I do not see that one called Nārāyaṇa ; I do not see that one called Girāyaṇa ". In colloquial language we find a large number of these such as *mani-gini* ' home ', *hola-gila* ' field ', *tali-gili* ' head ', *ūṭa-gīṭa* ' meals ', *ūrige-gīrige* ' to the city ' etc. In Tam., we have *puli-kili* ' tiger ' etc.

II PROTHEIS :—

ār > *yāru* ' who '; *ēke* > **y-eke* > *yāke* ' why '; *ētarke* > *y-ētarke* > *yātarkke* > *yātakke* (by assimilation) ' why ', *bēḍa* > **b-(y)-eḍa* > *byāḍa* ' hunter ' *bēsara* > **b-(y)-ēsara* > *byāsara* ' laziness '; *bēṭe* > **b-(y)-ēṭe* > *byāte* ' hunting ' *tōta* > **t-(v)-ōta* > *tvāṭa* ' garden '.

These are instances of semanto-phonetic parallelisms, very interesting to the students of psychological linguistics. For instance, the changes of **ār* > *yāru* ' who ' in Kannaḍa and primitive Dravidian **ēn̲* > **yēn̲* > Tamil *yān̲* ' I ' might have been due to the excessive concentration and the consequent emphasis of articula-

tory and psychic energy on these words by the speakers of the old languages under discussion. I may parenthetically point out here that an examination of the nominative and the inflectional bases of the first person in the various dialects will clearly indicate that the development of *y* before *ē* of *ēn*, the opening of the front vowel and the nasal assimilation had all been brought to play in the Proto-Dravidian itself. In support of the above assumption may be quoted Telugu forms *ēnu* and *ñenu*.[11]

The initial strong dynamic accent, we find in these words, might have been due to an irresistible subjective intention.[12]

I may parenthetically add here that the famous VERNER'S law-[13] intervocalic spirant-voicing in Germanic dialects when the accent follows the spirant in the PIE- is given a similar explanation. Also witness the voicing of the spirant in the German command *einen schub* (on account of the strong dynamic accent on the last vowel and consonant).

Phonoposotie bzw.-topie und das Vernersche Gesetz.

Auch Hentrich (1921, S 300) hat in letzter Zeit gezeigt, wie das Experiment bezüglich der Stimmhaftigkeit angewandt werden kann, indem er sich mit einer Erscheinung im Nordwestthüringischen des Eichsfeldes abgibt, die seines Erachtens geeignet ist, zum verständnis des Vernerschen Gesetzes beizusteuern. Während in dieser Mundart stammhaft der stimmlose *s*-Laut ist, weist das Arbeitskommando *:ainnə z'uf* ! = einen Schub *z'* im Anlaut des autochtho-

nen *z'up*<*šup* auf.".....Dieses Kommando wird beim Verschieben, Stoen Heben schwerer Gegen ä de gebraucht, deren Bewegungein gleichzeitiges Wirken vereinter Kräfte in einem Augenblick verlangt. Das Ankündigungskommando ist *ainän*, dessen beide Silben einen Takt bildend, meist mit gleicher Dauer, kurz und energisch und mit gleicher Tonhöhe oder in der zweiten Silbe fallend gesprochen wird; ihm folgt nach kurzer Pause, die aber schon die psychologisch bedingte artikulatorische Einstellung seines Reibelautes aufweist, order deshalb auch unmittelbar, das Ausführungskommando *z'up* in erhohter Tonlage und mit wesentlich verstärktem dynamischen Akzent.... Dieser Wandel geht dem des Vernerschen Gesetzes Genau parallel : Akzentuierung folgenden Vokals verursacht in Stimmhaftigkeit resultierende Minderung der Intensität vorausgehender Konsonanz...." Hentrich versuchte nun bei der Mundart unkundigen Personen festzustellen, ob in ihrem Munde das Kommando bei genügendem Einleben in dasselbe sich jener Form nähere. Er sprach fünf *Vpn*, die den Zweck der Untersuchung nicht kannten, das Kommando in der Form *ainän šup*, also mit stimmlosem *s'*, vor und lie B es von ihnen wiederholt auf das Kymographion nachsprechen. Bei zwei *Vpn* war ein Einleben in die Bedingungen des Kommandos nicht zu erreichen. Die Kurven der drei anderen zeigten in einer Anzahl von Fällen Stimmhaftigkeit für den Reibelaut, aber mit verschiedenen ñ - und Werten. Eine *Vp* meinte nach einigen Aufnahmen, sie habe "falsch" gesprochen, denn sie hab ja *z'up* statt *šup* gesagt. Die experimentelle Untersuchung zeigt also,

da B die Entwicklung *ainān suṭ> ainān zuṗ* unter den angenommenen Bedingungen n öglich ist."

I have already indicated how the problem of the *Āytam* is a significant parallel to VERNER'S law.[15] I may therefore parenthetically add that it will be worth while for students of Dravidian Linguistics to investigate the suggestion that the dynamic accent inevitably might in its turn have led to the objective refraction by introducing the phoneme *y* initially in instances like Tamil *yāṉ* and the Kannaḍa, *yāru*.

Here it must be borne in mind that it might be also a pure chance coincidence that there are close resemblances between certain speech-forms belonging to unrelated languages. These need not necessarily belong to the realm of 'ethno-psychology' e. g. the Fox *Magi-* 'big' which seems to correspond to Latin *Mag-nus* and Fox *yā-* 'go' and Skt. *yā*; Fox- 'site' if he, she be' (auxiliary, Latin *sit* Fox 'si-, -t-e'; Lat. *s-i-t*). Fox *-guni-* 'day' and Turkish *gun-*. These may be merely chance coincidences.[16] To this category might belong also the proto-Dravidian **ên* and *māgyar én* (1st person pronoun singular).[17]

The change of the original initial *ṗ>h* in the Kannaḍa of the 10th century which I have already referred to in my first lecture seems to be also an ethno-psychological feature for we meet with the same phenomenon in Armenian and Indonesian too.

Ex :— Arm. *hing*, 'five' as compared with Sanskrit *pañca*, Greek *pente*; Rottinese *hitu* 'seven' < original Indonesian *ṗitu*[18].

While a majority of regular parallelisms in *concrete* morphological systems or in coherent parts of

them might go to establish genetic relationship between any two languages, a certain *very small number* of regular parallelisms even in *concrete* morphological system (as well as perhaps a few *general morphological procedures* also) may *not* indicate genetic relationship between any two languages under discussion and therefore are necessarily beyond the *comparative method.*

Ex : Middle Demonstrative.

U is the middle demonstrative element in Kannaḍa as well as in Tamil. We have traced it to the pro-ethnic Dravidian comparing a number of interesting vocables in cognate languages in a paper submitted to the 10th All India Oriental conference held at Tirupati and Published in the *Indian Lingustics*, Vol. VII, 1939, pp. 242-250.

In that paper we point out that this feature was present in the languages of the Ṛgveda also through the accent functioning as a morphological tag.

he 'e or *he*-in Tonkawa seems to be the Middle Dem.[19] and Coeur D' Alene seems to possess the Middle demonstrative.[19](a)

We also show that in Santali this feature is met with.

Santali un, unre 'then, at that time'-unre bañ tahēkana ọṇḍẹ̄ dọ = 'it was not there then'.

Cf. also Santali un jọkha, un jọkhẹ̄c' 'that time, then'- un jokhae dak'et' tahẹ̄kana, = 'it was raining at that time'.

It is curious that in Santali *ina* is used in the sense of both 'that' and 'this' : e. g.

inage aguime = 'bring that one'.

inage bon galmareoa = 'we will discuss this matter no farther'.

(See A. CAMPBELL'L *Santali Dictionary,* 1933, pp. 686–87 and 265).

Inclusive and Exclusive 1st person pronoun plural.

This distinction is met with in the Nuba languages as well as the Algonkian languages. They are, of course, met with in the Austro–Asiatic family and Austro–nesian group of languages also.

It is interesting to note here that the distinction between the inclusive and the exclusive 1st person plural (an ethno–psychological feature common to many unrelated languages) can not be posited in the proto–Dravidian for this distinction does not seem to be linked up (with in the Dravidian field) with any other grammatical phenomenon.[20] The middle demonstrative element *u* on the other hand can be traced to the proto–Dravidian, for not only is it possible to discover its trace in almost all the Dravidian languages (and particularly its presence in literary languages like Kannaḍa and Tamil which can be traced in various periods)[21] but also because of its possible *psychological connection* with another phenomenon belonging to the realm of verb–morphology in the two important Dravidian languages Kannaḍa and Tamil.[22] [Vide KITTEL *A Kannaḍa–English Dictionary,* Mangalore, 1894. p 210 (*u,* 10). See also under the words – *udu* (1), *unitu, untu, undu, unne, ulli, uva* (1), and *uval.*]

KITTEL gives the following terminations– *tu, ttu,* and *du* which are found in *oḷḷitu, beṭṭitu, kiridu, oḷḷittu*

etc. These are to be classed with the so-called adjectives. *Tu, ttu,* (euphonically doubled) and *du* represet *t, tt,* and *dd,* the primitive signs which point to an object in a general way, with a euphonic *u.* When to *du* are prefixed *a, i* and *u,* the direction becomes distinct. [F. KITTEL, *A Grammar of tke Kannaḍa Language,* 1903, p 57 Sec 122.]

See the following words– *beṭṭitu, beṭṭittu; daṭṭitu, daṭṭittu; mellitu, mellittu; teḷḷitu, teḷḷittu; tōṛittu; nērittu, kūrittu; uddittu, nuṇṇittu, taṇṇittu, guṇḍittu; doḍḍittu; ballittu–* given as examples under *Sūtra* 77, of the *S'abda maṇiḍarpaṇa* by *Kesirāja.*

In *embudu* ' thus (having spoken)' which usually occurs as a prose bit at the end of a speech in works like the *Pampa-bhārata,* we may be justified in positing the later temporal aspect. In all such places, the point in time at the commencement of speech is neither too near nor far remote.

A similar thing can be said of verbal forms with *u*–suffix, as in Kannaḍa *māḍpudu* ' doing ', *barpudu* ' coming ' etc. Cf. also the Tamil usage-*avaṉ varuvadu eṉ' akku teriyādu* (colloquial) = ' I do not know about his coming.

It must be remembered here that KITTEL in his *Kannada Grammar* (p. 111, sec. 177) points out that *am* ' *he* ', *aḷ* ' she ', *udu* ' it ' used as terminations to form the past relative participle (called *bhūtavati kṛt* or *kṛlliṅga* by KEŚAVA-MIŚRA. For *udu* there occurs also *ittodu* ' twice ' in a S'āsana between 597 and 608 A. D.)

We have seen verbal forms in *du* in Tamil e. g. *ceyvadu, pōvadu* etc. In Telugu also we have *ceyyu.*

There are also corresponding forms with the *pu* suffix in words derived from certain verbal roots : e. g. *Kaṛ ppu< kṛp* ' vow ', decision, determination '– *namaṉ ai yiṉ'r'i van' kaṇṇiḍai uiṛuttu voṉ eṉ ṉ uṇ kaṛ piṉ āṉ* (*Kampa-rāmāyaṇam,* Kumbhakarṇaṅ-vadhai-p-paṭalam, 308);– *tōṛpu* ' ' defeat ', *tōṛ pu velvadu colpavar yār* (Kukaneriyappa Nāvalar, *Upadeśa Kāṇḍam, S'iva vrata* 342, Madras, 1837);– *mārppu* in Telugu; *cêrpu* in Tamil (and Telugu also) = ' *place* '; *mēruviṉ cikarac cêrppiṉ* (Kampa-rāmāyaṇa, *Maruttu* malaippaṭalam, yuddhakāṇḍam 53).

Tamil *eṉba* and *eṉbadu* are the corresponding forms of Kannaḍa *emba* and *embudu*. But there is one important difference. While *emba* in Kannaḍa is a verbal participle, in Tamil it is a finite verb. [in Telugu *anu* is the corresponding word].

III *The distinction of nouns as ' living ' and ' dead ' words.*

Language has at its disposal a wealth of means of which it makes full use to express ' self '. This is by no means restricted to the pronoun but the noun also functions as an effective medium in this respect. It is for this reason we have in Chinese the distinction of nouns as ' living ' and ' dead ' words. In Tamil we have this distinction of nouns as ' living and ' dead ' words which are called the *Uyar-tiṇai* and *A.:.riṇai* respectively.

In Yuchick too, this distinction between ' animate' and ' inanimate ' seems to exist.[23]

IV *Recognition of kinds and degrees of personality according to the function of the individual :-*

We are told that in Bantu language a person acting for himself is ranged in one class, one acting on behalf of another in a different class.

In Sanskrit also we meet with this feature in the distinction that must have been originally made between the *Parasmaipada* and the *Ātmanepada*.

Some possible examples of Syntactic parallelisms

(1) *Compositional stringing of verbal modifications standing grammatically in one line :-*

vaṅdu eydi (Tam.), 'coming attaining (literally.)

Kan. *Baralā nṛpālakam sōdararverasi muni* |-
varana padakeragidoḍe maṇidetti bōḷaisi |
parasi mantrākṣatiyanittu satkāramam koṇḍu |
kuḷḷirda baḷika (*Jaimini, 2, 14*).

'When he (i. e. Vyāsa) came, the king having informed his brothers and howed down at the feet of the sage, (the latter) taking the (king's) forehead up, placing his hands gently over it, blessing, throwing the coloured rice, being welcomed, sat down afterwards.

(2) *Functional Syncretism :-*

Nāgavarman[1] and *Kēśirāja*[2] give many instances under the *sūtras* in which they have discussed this phenomenon of case-variation. Gen. for Nom. *niśyankeyim nṛpana pōḷe* (for *nṛpam pōḷe*) 'the king told without doubt'; *bandanā bhūpana* (for *bandanā bhūpam*), 'The king came'.

Gen. for Acc. *yelavo, nīnenna konday* (for *ennam konday*),

"Oh, you killed me (lit. 'of me'.)

(3) *Compounding with the finite verb of the elements denoting the limbs of the body and other nominal ideas :–*

(1) Karnāṭaka Bhāṣābhūsaṇa I

(2) S'abdamaṇi darpaṇa.

Nimma prasādakkallade bāy-dereyenayya, which means "I do not pray (literally 'I do not open my mouth') for anything except for your grace."

Colloquial phrases like, *tale-koḍu, kai-tōrisu* etc., mean "to share the responsibility" (Lit. 'head-give') and "to give a good fight" (lit. 'hand-show').

Cf. also Tam. *kai tūkku*, (lit. 'hand-raise'), "to lift up a person from distress, to save from ruin" etc.; similarly *kaṇ-kāttu* means (lit. 'eye-show') "to guide with supreme love". (*Tiruvācagam*, I, 21.)

(4) *Dative of Kinship :–*

Kan. *tandeyaḍagida baḷika nīne tande tāyenage avanijāteyu.* Here Bharata speaks to Rama:- "You alone are my father and Sita my mother after the death of our father."

I need hardly point out that "ethno-psychological features require a deeper explanation than any which would confine itself merely to grammatical relations[24]. Indeed on the basis of psychological analysis alone certain difficulties associated with what appear to be exclusively linguistic problems could be solved.

The orthodox comparative method does certainlay fail to operate in the region we define as "ethnopsychology". This failure is evident when we remember that until recently 'primeval relationship' and 'borrowing' were thought to be entirely two distinct

concepts.[25] The concept of *primeval relationship* has at its basis the assumption of genetic relationship of the Pre-historic parent languages (reconstructed *Ursprache*) of certain families. The assumption that the prehistoric parent languages of certain families were wholly unrelated lies at the basis of the concept of *borrowing*. These ere the concepts of the early Neo-Grammarians. But what at first sight seems to be the most complicated and intricate assumption (ordinarily difficult to conceive) which crudely put would read something like the following :– "Certain prehistoric parent languages of a few families in their turn must have been neither wholly *related* (genetically speaking of course) nor wholly *unrelated*" seems to be the *only* assumption that explains satisfactorily certain facts found in primitive languages which have happily survived to this day. In the complex world of actual linguistic history, there can not be drawn sharp lines between some prehistoric languages as certain linguistic facts do not work out along neatly schematic lines.[26] This is particularly pointed out by the investigations of eminent scholars like Hugo SCHUCHARDT, Franz BOAS and C. C. UHLENBECK.[27]

Now having defined the region of "ethno-psychology" and indicated not only the failure of the comparative method but also the revolution of certain old neo-grammarians' concepts in modern linguistics from the point of view of which it would be most fascinating to study the "ethno-psychological" features, one might ask further how to attack the problem of "ethno-psychology" itself most effectively. I come to answer this question now.

A. L. KROEBER and C. D. CHRETIEN have attempted to clearly demonstrate that strictly quantitative methods could be applied for the determination of the degree of similarity of genetically related languages included in any one family. Their application of statistical technique[23] very remarkably appears not merely to confirm the results already arrived at by the *comparative method* (which is the bedrock of linguistics) but also the view held by scholars like E. H. STURTEVANT (who take their stand on the rigorous *comparative method*) that Hittite is cognate with the Primitive Indo-European itself (witness for instance E. H. STURTEVANT'S paper in *Language*, Vol. 15, 1939, pp. 11-19). Thus it appears that the validity of the application of the statistical methods to purely linguistic phenomena seems to be effectively demonstrated. In order to further ensure the validity of this procedure, the statistical technique applied to linguistic phenomena by KROEBER and CHRE'TIEN itself may further be examined. This entails the separation of *morphology* and *phonology* from KROEBER-CHRETIEN data and finding out their separate coefficients. This analysis is showing signs of practically deranging *Kroeber Chrétien* coefficients and seems to lead to many new ideas in quite an unexpected manner about many a linguistic phenomenon (with strictly *objective standards*) of which it has been so far supposed that the *comparative method* has said almost the last word. I hope to present the results of our investigations in regard to the reexamination of *Kroeber-Chrétien* method shortly. I venture to throw a suggestion here that the thus perfected statistical techniqne may with advantage be

applied to the region we define as that belonging to the realm of "ethno-psychology". It is only the next logical step to think of using this tool of statistics for the study of *convergence* (i. e. an enquiry into how often unrelated languages independently develop similar features). [A. L. KROEBER and C. D. CHRETIEN, *Language*, Vol. 15. 1939. p. 71, A. L. KROEBER, *Anthropology*, 1923, pp. 124-25]. Indeed the problem of the "ethno-psychological features bristles with an immense possibility in that it might be fruitful to apply the rigorous statistical methods for the discovery of the fundamental psychological laws governing all human speech. To this end the problem will have a *methodological importance*. Here therefore is a rich field for students of Kannaḍa Linguistics.

Speaking of the application of the statistical methods to the linguistic phenomena, I have a very special reason for telling you that we have before us an immense possibility. George Kingsley ZIPF propounded an inverse square frequency law for words.[29] It occurred to me that we must approach the problem from the point of view of Kannaḍa. Hence I got the old Kannaḍa word-counts from Mr. M. G. VENKATESAIYA (a student working under my direction). The three works, the *Kavirājamārga*, the *Voḍḍārādhane* and the *Pampāśatakam* are taken. The counts are presented as follows.[30]:-

	Observed				Expected.		
Fr.	K	V	P	Totals	K	V	P
1	3241	2990	1087	7318	3220.6	3041.3	1056.1
2	270	301	62	633	278.6	263.1	91 3

3	62	71	19	152	66.9	63.2	21.9
4	40	45	14	99	43.6	41.1	14.3
5	29	22	7	58	25.5	24 1	8.4
6	39	47	18	104	45.8	43.2	15.0
Total	3681	3476	1207	8364	3681.0	3476.0	1207.0

We assume that the three works are uniform in the structure of their language stream and the expected numbers are calculated on this assumption. In practice the expected and the observed totals will never coincide. Therefore some method of calculating the magnitude of the discrepancy and of judging its seriousness is felt to be necessary. This is the *x2* test here. *x2* is the sum obtained by squaring the difference between each expectation and observation, and dividing the square by the expected number. This sum is here about 22.25. Prof. KOSAMBI points out 'that the probability of exceeding this value of *x2* lies between .01 and .02'. Any suggestion of Martin JOOS[31] or of ZIPF[31(A)] is not as exact as this test. The two woks the *Kavirājamārga* and the *Voḍḍārādhane* are found compatible, when the test is applied to the data for these two works. Hence we may say that these two works follow the same frequency laws while the *Pampāśatakam* is decidedly of a different nature. The main cause of the discrepancy lies in words of frequency two, of which the *Voḍḍārādhane* has too many and the *Pampāśatakam* far too few. The conclusions reached when *x2* test is applied to ZIPF'S data are discussed by Prof. KOSAMBI. He points out that 'the fit is hardly satisfactory and the best that can be said about the proposed law is that the data for chinese

does not contradict it so decisively as that for the remaining languages'. Not only does Prof. KOSAMBI point out that none of the inverse exponent laws fit at all well, but also that for the KAEDING's data,[32] the three counts given by ZIPF and the three Kannaḍa counts with which he illustrates the *x2* test, a type B series derived from the Poisson distribution or one of Neyman's "contagious" distributions[32(A)] would be found, to fit far better. 'Another interesting possibility, if a Poissonian or type B series is found to fit well, would be of estimating the passive vocabulary of the stream, words not used at all, by extrapolation, the "maximum likelihood" formulae for estimating the words of zero frequency from a supposed Poisson distribution can be worked out very easily.' I need hardly tell you that here is a rich field for students of Kannaḍa linguistics to explore.

Elsewhere[33] I attempted to make clear how the "Science of Synonymics" of all the languages spoken in India will undoubtedly lead us to work out in great detail the farreaching implications of PAGET'S important gesture theory in regard to the origin of human speech. It is worthwhile to examine this theory with all its implications purely from the point of view of Dravidian Linguistics,[34] after making a detailed "chronological study of linguistic facts within each individually attested member (like the Kannaḍa language) of the family (Dravidian) and then instituting the comparison of synchronic elements of cognate members."[35]

PAGET (*Human Speech*, 140) shows that the speech-gesture involved in the utterance of the proto–

polynesian and archaic Japanese *ada* 'reach up' is the tongue reaching up to touch the palate. With a slight change in this speech-gesture, we have the cacuminal (cerebral) displacing the dental phoneme and the result is the Tamil word *aḍai* 'to reach, arrive at, to get, obtain' and Kannaḍa *aḍe*.

Again the speech-gestures involved in the utterance of the Proto-Polynesian and archaic Japanese *tura* 'to feel' is feeling behind the lower teeth and up behind the front teeth. In Kannaḍa we have *tōṛu* (e. g. *nanage tōṛuttade* which literally means 'it appears to me'. The word *tōṛu* may be translated into 'feel' here for the above sentence would be more idiomatically rendered into the English sentence 'I feel so') *tōri* is met with in the 6th-7th centuries Kannaḍa (vide GOKI, p. 306) as adverbial past participle ('having appeared') of *tōṛ* 'to appear'. Tamil *tōṉṛu, tōṛṛu* 'appear' Malayalam *tōṛu-* 'appearance' Tel. *tōcu* 'to appear', Tuḷu *tōrike-* appearance, *tōj-* 'to appear'. We have also in Tamil *toṭu* 'feel by the touch' (*kuṛaḷ*, 1159). *Toṭu* in Tamil means also 'to dig'. Here is further parallelism to the Japanese *tura* which means also 'to stroke'. In Kannaḍa too, we meet with the speech form *tōḍu* (see my paper. ABORI, XXI, 1941, pp. 243-244). It must be emphasized here that scientists have been able to establish that the origin of the earlier back consonants and of the later front consonants in children lies almost entirely in the expression of hunger and of its satisfaction for by far the greatest part of the child's life in his earliest months is taken up by food and sleep and therefore it is but natural that any utterance made by the child in connection with

feeding should become shaped by the movements of feeding; while discussing the nature of language of children we cannot evade the fact that the organs of utterance are also the organs of sucking (Cf. M. M. LEWIS, *Infant Speech*, London, 1939, p. 36).

KROEBER (*Morphology of the Tibetan Language*, p. 212) stresses the need for a more earnest investigation of the mono-syllabic languages. In that connection he indicates a few connections between Tibetan and various other languages including Dravidian. I venture to place this problem also before you and I take liberty here to give the problem in KROEBER'S own language :

'We have Tib. *h* = Osmanli *y*– = Fin., Ugr , ś = Dravidian *c*– (the latter we find for instance in Tamil *čavu* 'to become weak, to grow lean') [*tavu* Kannaḍa]. Along the same road we may probably also find some clue to Tibetan *hwag–s* 'sugared medicine like lozenges'; (one might compare here also Finnish *huvi* 'pleasure' *hyvä* 'good'), furthermore we may assume (1) a connection between Tib. *r–wa* 'horn; sting' and German *Schraube*, Finnish *rūvi* 'screw' and Tam. *uruvu* 'to penetrate, go through' (in Dravidian initial sound *r* is possible only with prothetic vowel) or (2) a connection between Tib. *r–tswa* 'grass' with Kanarese *tuppul* 'feather, soft plumage, fine hair,' Tam. *tūvu* 'sprinkle gently, rain,' Lat. *s–tupula*, German *Stoppel*; and (3) finally a connection between Tibet. *thswa* 'salt' and Tamil *tuvar* 'to be astringent, astringency,' and Skt. *tuvara* 'astringent, astringent taste,' *tuvarī* 'alum (and possibly also Suaheli *chumbi* 'salt').

Again 'Tibetan *khwa* 'crow'- apart from the connection with the list of monosyllabic word mentioned above–possibly can be associated with Tamil *kūvu* 'to crow'; Kan., *kūgu* 'to crow' or 'to call' but in spite of Lat. *coruos*, Skt. *Kārava*, not so easily with Tib. *khra* 'hawk, falk,' which far more readily appears to link itself with Tib. *b–žar ba* 'to cut off' *ḥ–thsor ba* 'to pursue, chase' (possibly equal to 'desirous of injuring') also with Greek *xe-c'pw*, Skr. *Kṛ–ṇā–ti* 'injured, killed' (*kharva* 'maimed'), German *scharf*, *schroff*, Kanarese *kŏṛe* 'to cut, break,' Tam. *ćeṛu* 'to kill, destroy,' Malay *ćarik* 'to tear apart,' Osmanli *qaraq* 'eagle' and others.' We might remember here that in mod. Kan. *kere* means 'to scratch' also. It will not be out of place if in this connection I draw your attention to yet another interesting passage also in KROEBER'S *Morphology of the Tibetan language* (p. 211.)

"The unextended root *k–r* (*g–r*, etc.) as in German '*krummen* (= *drehen*' again appears in the Tib. *s–kyor ba* 'to turn round repeatedly' *ḥ–khyor ba* 'to reel', *ḥ–khyit ba* 'to turn round' *ḥ–gyur ba* 'to change alter' (Cf. Sanskrit *Vartate* 'turns itself', etc. = German *werden*); furthermore compare here Tam. *kuṛaṇḍu* 'to be bent, crooked', Kan. *Kuṛgu, kurgu* 'to bend to shrink together' (also in the meaning of 'hump') *kuraḷ* 'curl' *giri* 'the whirling around', Tam. *Kiru–kiṛu* 'to turn oneself around, to be dizzy, confused' Malay *gila* 'distorted' crazy 'Suaheli *Kereza* 'to turn (on a lathe) and many others (cf. my paper, Bull. D. C. R. I. Vol. II, 1941, p. 331. Hans Nordewen Von KROEBER, *Morphology of the Tibetan Language*, p. 211, 1935.)

I am coming to the fag end of the course of these lectures. I need hardly point out how one has frequently to press into service the science of etymology in handling inscriptions. This has been sufficiently well emphasised by K. V. Subrahmanya Aiyar in his '*Three Lectures*'.[36] (see also p. 3 of my second lecture).

It is a happy augury that your institute has brought out a beautiful collection of inscriptions in the first vol. of the *Karnatak Inscriptions* (1941). As your able director points out (in the preface p. vii) scholars must avail themselves of the original texts published in this volume in their study of the cultural history of Karnatak from the historical, linguistic and administrative points of view. As the Editor further justifiably observes 'one special feature of the inscriptions in this vol. is that they are worded in rich colloquial vocabulary current in the locality' (See also ABORI, Vol. XXII. 1942, Pts. III and IV, p. 294).

In the Annual Report on Kannda Research In Bombay Province for the year 1939–40 of your Institute p. 4, your Director points out the steps he has taken to ensure healthy coordination with other Archaeological departments in India. I am fully confident that on the side of linguistics, your institution will enter into a happy collaboration with the Department of Dravidian Linguistics of the Deccan College and that both the institutions will avoid any unnecessary reduplication and clash of work. Here I might say that it is already a matter of gratification that Govinda Pai in his *Mūru Upanyāsagaḷu* gives certain interesting

conclusions on a few exciting topics from historical, epigraphical, linguistic and literary points of view. (A review of this book has appeared in our College Bulletin. Vol. III. 1942. page 402.)

Lastly I shall indicate here one very urgent need felt by all scholars of Kannaḍa. At present if they wish to study the inscriptional Kannaḍa they have to go to various periodicals like the Epigraphia Carnatica, Epigraphia Indica, Indian Antiquary, and different annual archaeological reports. It would be profitable if all the data could be had in a series of volumes collected from these scattered sources.. This is indeed a tremendous task. But its stupendous nature neet not deter us altogether from undertaking it with all our serious limitations We might take century by century and slowly proceed to bring out the series of volumes which I need hardly tell you will be a boon to the future workers. Here both our institutions at least might begin immediately to collaborate. In yet another matter too where immediate cooperation between our two institutions will bear fruitful results is the study of the dialect-geography of the Bombay Karnataka. Students of both the institutes might be exchanged and their linguistic and archaeological tours may be profitably arranged for the benefit of both kinds of work in which our two institutions are interested.

Towards the end of the first lecture I stressed the need of the immense work yet to be done on the different dialects of the Badaga Language. It is a great pity that owing to lack of cooperation from some other sister institutions in India, both your institute nad ours were not able to achieve this year the project

of taking a sound-film of the Nilgiri dialects. However, I am confident that at least in the coming year we will meet with success in regard to this project.

I must say here that material help can be furnished to the archaeologists by trained linguisticians, if they have the hardihood to undertake field investigations of the languages of the aboriginal tribes of Southern India who are undoubtedly speaking corrupt forms of Dravidian languages. I need hardly remind you of a parallel work done on the Red-Indian languages of North America through the important investigations of eminent scholars like Franz BOAS and E. SAPIR.

The researches undertaken by the pupils of Peter SCHMIDT (*Die Gliederung der Australischen Sprachen,* Anthropos, p. 151, 1912) in the Australian languages just before the last great war indicate the possibility of a relationship between the Dravidian and Papian and Australian languages, though nothing positive can be said until more intensive investigations take place in this country. It would be illuminating to study the primitive Dravidian languages still preserved in our country inspite of the inroad of modern civilization even as B MALINOWSKI and CODRINGTON have done for the Melanesian language. Indeed, we have to make haste as the languages of the aboriginal tribes are fast dying out and if they are not properly studied now, possibly in a few years no traces of them will be left at all. Here I may draw your attention to the fact that in the first volume of the *International Journal of American Linguistics* (1917, pp. 1 ff.) which is devoted to the study of American aboriginal languages,

Franz BOAS has given an illuminating article on a few of the problems that confront one in this field of research directed towards the aboriginal languages. (See also, Franz BOAS, *Race, Language and Culture,* The Macmillan Co., New York, 1940, pp. 199-210).

In Europe as well as in Central America, not to speak of Egypt and the Near East the unrecorded history has been unearthed by the aid of archaeology as you very well know. But in order to be able to do so here in the Dravidian field the fundamental unity of Linguistics, Archaeology and Anthropology has first to be realised. It should never be forgotten that neither in Europe, nor in Egypt or America such a splendid work as has been done would have been possible if help and cooperation of scientists in these allied fields were not sought. The culture or civilization is a complex whole and its full study involves the researches of different lines of workers and am I making too much a claim when I say that the foremost of them must necessarily be trained linguisticians?

I pray that from both our institutions numerous Sarat Chandra ROYS, GUHAS, SAPIRS and UHLENBECKS might come forth to do this magnificent work.

FOOTNOTES

1 The term is first used before us by Prof.C.C. UHLENBECK (*Mededeelingen der Koninklijke Nederlandsche Akademievan weten-schappen*, Ald Letturkunde, Nieuwe Reeks, Deel 2, No. 3, p. 47.)

2. H. Hilmer, *Schallnachahmung Wortshöpfung und Bedeutungswandel Verlag Von Max Niemeyer* Halle a/9, 1914, pp. 20 ff. 176 ff.

H. HILMER, The origin and growth of Language. *The Journal of English and Germanic Philology*, Vol. 17, 1918, p. 247.

3. John Taggart CLARK, *Lexicological Evolution and Conceptual Progress*, University of California Publications in Modern Philology, Vol. 7, No. 4, Sept. 21, 1918, p. 185.

4. See *ibid.*, p. 188

5. *ibid.*, p. 186

6. L. V. AIYAR, *Dravidic Miscellany, Ind. Ant.*, Vol. 59, 1930, p. 231,

7. G. S. GAI and C. R. SANKARAN, *Some Ethnopsychological features in Dravidian, Bull., DCRI.*, Vol. II, 1940, pp. 208–211.

8. SAPIR, *Sound patterns in Language, Language,* Vol. 1, 1925, pp. 43, 45, 46, 49.

9. *ibid.* p. 47.

10. W. L. GRAFF *Language and Languages*, p. 277.

11. K. Goda VARMA, A study of the personal pronoun in the South Dravidian languages. *New Indian Antiquary,* Vol. IV, 1914, p. 205.

12. W. L. GRAFF, op. cit. p. 182.

13. K. VERNER, *Eine ausnahme der ersten lautvershiebung. Kuhn's Zeitschrift*, Vol. XXIII, 1877, pp. 97–130.

14. G. Pancocelli-CALZIA, *Die Experimentelle Phonetik, in Ihrer Anwendung and die Sprachwissenschaft,* Berlin, 1924. pp. 44-45

15. See my paper, the positional variants of the Phoneme Aytam, *Bull., D, C.R.I.*, Vol III pp. 392-394.

16. Cf. T. MICHELSON, *Journal of the Washington Academy of Science*, Vol. 9, pp. 230 ff. *American Journal of Philology*, Vol. 40, 1919, p. 320.

17. C. R. SANKARAN, *Bull. D. C. R. I.* Vol. I, 1939, p. 98.

18. R. Brandstetter, *An Introduction to Indonesian Linguistics*, translated by C,O, BLAGDEN, London, 1916, p. 274.

19. See *Handbook of American Indian Languages*, ed. by Franz BOAS, part 3, 1933–38, p. 124.

19 (a) See *ibid*, p. 626.

20. See my paper, *Bull. D. C. R. I.*, Vol I, 1939. p. 99.

21. C. R. SANAKARAN and G. S. GAI, *Indian Linguistics*, Vol. VII, 1939. pp. 242–250.

22. See *ibid*, fn. 7, pp. 244–245 and also pp 249–250.

23. WANGER, *Handbook of American Indian Languages*, pt 3, 1938, p. 341.

24. Cf. MALINOWSKI, *Supplement I to* OGDEN and RICHARDS, *Meaning of Meaning*, p. 302, London, Kegan Paul, 1936.

25. C. C. UHLENBECK, *American Anthropologist*, Vol. 39. 1937, p. 390.

26. See E. SAPIR, *Language*, Vol. I, 1925,p 47.

27. C. C. UHLENBECK, *American Anthropologist*, Vol. 39, 1937, p. 390.

28. A. L. KROEBER and C. D. CHRETIEN, *Language*, Vol. 13, 1937, pp. 83–103 also *Language*, Vol. 15, 1939, pp. 69–71.

29. Vide G. K. ZIPF, *Selected Studies of the Principles of Relative Frequency* in *Language*, 1932, p. 24, *The Psycho-Biology of Language*. 1936, pp. 40–44.

30. This table and the following arguments are given from the paper "*On Valid Tests of Linguistic Hypotheses*" by D. D. KOSAMBI, published in *New Ind. Ant.* Vol V, pp. 20–24.

31. *Language*, XII. 1936, pp 196-210.

31 (a) *Language*, XIII. 1937, pp. 60–70.

32. *The Psycho-biology of language*, 1936, p,23.

32 (a) KOSAMBI, NIA. Vol , V. 1942. page 23.

33. ABORI, Vol XXI, 1939–40, p. 235.

34. *ibid*. p. 240.

35. S. M. KATRE, ABORI, Vol. XX,p. 277,1940

36. K V. Subrahmanya AIYAR "*Three Lectures*", *Kannada Research Lectures Series*, No. 2, Dharwar, 1941, pp. 28 ff.

ADDENDUM

Lecture I :

1. With reference to *ōḍu* 'to run' and *ōṭṭu* 'to drive', *āgu* 'to become' and *ākku* 'to become', cf. Kui x *āga* 'to bear fruit' (W. W. WINFIELD, *A Grammar of the Kui Language*, p. 168)

2 With reference to Tōḍa *c*, cf. also "[c] and [J] are found, the [c] often was mistaken for [ts]. [J-] and [dj] seem to be interchangeable." (S. K. CHATTERJI, A Phonetic Transcription from Toda, *Proc. of the sixth All-India Oriental Conference*, 1930, p. 681.)

Lecture III :

1. With reference to the ethno-psychological features comprising phonological, morphological and syntactical deep-rooted parallelisms between entirely unrelated families of human languages, I may draw attention here to the work of J. MAYER, Dravidische Nominalsuffixe und ihre afrikanischen Parallelen (*Bibliotheca Africana* I, 1924, pp. 44–56). Cf. also I. Jorge Quintana Vives, *Aportaciones a la interpretacion de la escritura proto-india*, Madrid. Barcelona, 1946.

2. N Lahovary, Apercus Nouveaux sur de Rapports Insoupconnes du Basque et des Langues Dravidiennes, etc. Publicado en el Boletin de la Real Academia de Buenas Letras de Barcelona, XXI, 1948.

3. N. Lahovary, Substrat Linguistique Méditerraneen, Basque et Dravidien. Substrat et languages classiques Firenze. 1954.

4. C. R. Sankaran, A. D. Tasker & P. C. Ganeshsundaram. *Quantitative classification of Languages.* Bulletin of the Deccan College Research Institute, VOL. X. No. I, pp. 85-111. (1950.)

4(a) A. D. TASKER, *Quantitative Analysis of Languages*, BDCRI, Vol. I2, 1951, pp. 259–264.

5. For onomotopoeic and jingle words in Dravidian influencing the Indo–Aryan, see S. K. CHATTERJI, *Indo–Aryan and Hindi*; M. B. EMENEAU, Echo–words in Toda, *New Indian Antiquary*, Vol. I, pp. 109–117; W. W. WINFIELD, *A Grammar of the Kui Language*, 1928, p. 146; A. H. ARDEN, *A Progressive Grammar of Tamil*, p. 301; KITTEL, *Kannada Grammar*, pp. 304-305; and H. SPENCER, *A Kanarese Grammar*, 1914, p. 208.

6. With reference to the inclusive and exclusive 1st person plural, see Sten KONOW, *Linguistic Survey of India*, vol. 4, p. 293 ff. (Calcutta, 1904). Also, P. W. SCHMIDT, *Die Sprach–familien und Strachenkreise der Erde*, Heidelberg, 1926, pp. 327–334.

7. With Tamil form *aḍai* 'to get, to reach, to arrive at, to obtain' and Kannada *aḍe*, cf. also Kui *aḍa* 'to join' (See W. W. WINFIELD, *A Grammar of the Kui Language*, 1921, p. 168).

8. In connection with the discussion of speech-forms like Tamil *tōṭu* 'to dig' from the point of view of *Paget's* gesture theory, cf. Sir Richard *Paget*, The relation of the deaf mute sign language to the sign languages of North America and Queensland, Australia *Proc. II Interna. Congr. of Phonetic Sciences*, Cambridge, 1936, pp. 28–30.

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1. G. S. Gai, *Historical Grammar of Old Kannada* (based entirely on the Kannada inscriptions of the 8th, 9th and 10th centuries A. D.) Deccan College Dissertation Series, No. 1, 1946.

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3. C. R. Sankaran, *Phonemics of Old Tamil*, Deccan College Monograph Series, No. 7, 1951.

4. P. C. Ganeshsundarm, A generalised Treatment of the Typology of Languages as Communicable Media, *Bulletin of the Deccan College Research Institute*, vol. 12, 1954.

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ERRATA

Page	*Line*	*For*	*Read.*
3	6	Koerher	Kroeber
6	26	*Vāiḷya*	*vāḷiya*
13	13	*phychological*	*psychological*
13	31	45 64	45 . 64
13	32	accusative	Accusative
15	8	equillibrium	equilibrium
15	13	desided	decided
15	15	phonem	phoneme
16	25	'*r̤*' *maṛam*	'*r̤*' in *maṛam*
20	8	Cent	*pola* (
22	20	occulusive	occlusive
25	1	KOERBER	KROEBER
26	4	*Rāmāyaṅam*	*Rāmāyaṇam*
35	10	ergonic d chart	ergonic chart
37	3	buiet	built
37	9	Compicated	Complicated
40	9	*Ksmadiñeda*	*Kṣēmadinda*
52	8	aud	and
52	28.	In	I
53	8-9	from from	from
58	5	Tke	The
60	23	ovolution	evolution
61	1	ragards	regards
69	15	Lingustics	Linguistics
75	7	ere	are
78	20	woks	works
84	13	neet	need
84	32	nad	and

ಗ್ರಂಥಾಲಯ
ಕನ್ನಡ ವಿಶ್ವವಿದ್ಯಾಲಯ – ಹಂಪಿ
ವಿದ್ಯಾರಣ್ಯ

ವರ್ಗೀಕರಣ ಸಂಖ್ಯೆ : 8KO.9 SHA

ಪರಿಗ್ರಹಣ ಸಂಖ್ಯೆ : 107822

ಪುಸ್ತಕವನ್ನು ಕೊನೆಯಲ್ಲಿ ನಮೂದಿಸಲಾಗಿರುವ ದಿನದಂದು ಅಥವಾ ಅದಕ್ಕೆ ಮುನ್ನ ಹಿಂದಿರುಗಿಸಬೇಕು. ತಡವಾದ ಪ್ರತಿದಿನಕ್ಕೆ ನಿಯಮಾನುಸಾರ ದಂಡ ಶುಲ್ಕ ವಿಧಿಸಲಾಗುವುದು.

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